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THE SURGICAL MANAGEMENT OF OCCLUSIVE VASCULAR DISEASE*

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DEFINITIVE surgical procedures now available for restoring circulation to ischemic tissue are the result of many investigators.[1-5] Early recognition of operable arterial disease, improved facilities for patient selection, readily available plastic grafts, and advanced operative technic have vastly improved the outlook for the patient with peripheral arterial disorders. In many instances, complete functional restoration can be expected and contemplated amputation often averted.

Arteriosclerosis is unquestionably the major cause of peripheral arterial disease. Less frequently, trauma, sclerosing aortitis, embolism, inflammatory and neoplastic invasion are responsible for arterial occlusion.

The severity of the discomfort and the activity that produces it are the indices of the degree of ischemia. Pain in the resting, pulseless extremity indicates severe ischemia, while muscle pain occurring only after prolonged rapid walking and relieved promptly by rest indicates ischemia of a milder degree. Ischemic discomfort may be described by the patient as tiredness, aching, fatigue, cramping, or a vague numbness. Its location often helps in a general way to localize the site of obstruction. As a rule, back, thigh and buttock discomfort indicates obstruction in the lower aorta and iliac arteries; when the discomfort occurs in the calf there is usually compromised flow in the femoral or popliteal artery.

Absence of pulsations in the arteries of the extremities should be sought by careful palpation and, if the findings are questionable, confirmed by the oscillometer. Marked differences in amplitude of pulsations are indicative of proximal arterial obstruction. At times it may be desirable to eliminate the possibility of abnormal arterial constriction by the use of procedures which eliminate vasoconstriction and produce vasodilation, e.g., sympathetic block, adrenergic blockade, or reflex body heating. At times pulsations may be palpated distal to a complete or partial arterial obstruction due to the development of large collateral vessels.

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When one endeavors to localize a given arterial obstruction, X-ray examination is used. The procedures generally used are aortograms, arteriograms, or combinations of both. These are not done unless (a) the patient has consented to undergo operation if an operable lesion is found, (b) there is no sensitivity to iodine-containing contrast media, (c) there is no elevation of blood urea nitrogen or other indication of impaired renal function, (d) cerebral vascular disease or coronary artery disease does not contraindicate surgery, and (e) the patient does not have an incapacity which precludes rehabilitation.

The diagnosis of occlusive disease of the aorta, iliac and femoral arteries can ordinarily be made by history and physical examination. Arteriography and aortography,[6] however, often localize the actual site of occlusion, delineate its extent, reveal collateral circulation and the presence of distal runoff, and, most important, show the condition of the vessel. A smooth appearance of the vascular lumen indicates less disease than with a "moth-eaten"-appearing lumen. This is of more than passing interest to the surgeon if an anastomosis has to be performed into the side of such an artery. Such studies are of great importance in selecting patients for direct surgical procedures.

The contrast medium which has proved most satisfactory in our experience is Hypaque. The 50 per cent solution is used both in aortography and in arteriography, 30 to 35 c.c. being used for the former and 15 to 20 c.c. for the latter. Apparently Hypaque is not as irritating as other opacifying agents; it has been used as a second injection at the same sitting without ill effect. Preliminary testing for sensitivity to Hypaque is routinely performed, although its actual value is questionable.

Many investigators consider sedation and local anesthesia adequate preparation for aortography and arteriography. It has been our experience that fewer retakes are required when the procedure is performed under general anesthesia. At times, moreover, the patient expresses a definite desire for general anesthesia. For those reasons and because it eliminates patient tension and patient motion and helps in yielding a higher percentage of interpretable films, we prefer general anesthesia.

All films are interpreted by the radiologist and discussed with the surgeon and internist as a preliminary to deciding the course of treatment.

Certain factors which are important in determining the ultimate success of operative relief of a given arterial obstruction are patient selection, choice of surgical procedure, and surgical care.

PATIENT SELECTION

In general, patients who are not acceptable candidates for visualization procedures will similarly not be considered suitable operative risks. The only exception to this is in the event of a catastrophic occlusion of a vessel when an emergency clot extraction offers the patient his only chance for survival.

We have used the following guides in selection of cases:

1. Careful preoperative evaluation of the cardiovascular system in general. This is indispensable, since advanced disease of the circulatory system in vital areas may so impair the prognosis that an operation is probably not justified.

2. Progression of the disease as indicated by the advancement of subjective and objective manifestation of ischemia while the patient is under observation.

3. Significant functional impairment which is capable of amelioration by the contemplated operation.

4. Pregangrenous changes in an extremity.

Age has not been a limiting factor, although most patients have been less than 70 years old.

CHOICE OF APPROPRIATE SURGICAL PROCEDURE

In addition to embolectomy, the surgical methods for restoring blood flow in occluded arteries include:

1. Resection of the diseased vessel with grafting.[7]
2. By-pass grafting.[7]
3. Endarterectomy.[8, 9]
4. Various combinations of these procedures.

Thrombosis of the terminal aorta and iliac arteries is ideally treated by resection of the diseased portion and replacement by a graft. Incidence of success is high with this procedure. It probably has its widest application in obstruction of the lower aorta and remains the procedure of choice with many surgeons. However, when disease is rather extensive, involving aorta, iliac arteries and portions of the femoral artery as well, many surgeons employ a by-pass technic, shunting blood from the side of the aorta well above or away from the diseased portion to a suitable site in a vessel distal to the occlusion. Probably the major advantage of this procedure is that it minimizes damage to existing collateral vessels on which the limb depends for survival and which in the event of graft failure will continue to sustain the limb. By-pass grafting is most often used to shunt blood around occlusions in the femoral artery.

Endarterectomy involves various methods of opening the artery and removing the thrombus along with the intima and sometimes portions of the media. Endarterectomy has only a few indications in our experience and only a few advocates elsewhere. There is a higher percentage of recurrent thrombosis following this procedure.

Our preference in graft material has turned to vascular prosthesis made of the various synthetic fibers. Crimped, woven and knitted tubes and bifurcations made of nylon, dacron and teflon have all been employed.[10] The most satisfactory to date has been the tightly woven, crimped teflon graft. This can be used without preclotting, may be used in a heparinized patient, and may be cut at an angle without fraying. These technical advantages have decreased operating time and blood loss. Homografts have been abandoned here and elsewhere.[11, 12] Increasing reports in the literature indicate that these grafts are susceptible to disease. Aneurysm formation, calcification and thrombosis have occurred in a number of them. The difficulty in obtaining homografts and processing them for use seems to outweigh any advantage they may have had. Synthetic fiber grafts in any size are now available in many operating rooms.

SURGICAL CARE

The usual preparation for any major operations and the special workup previously mentioned are the only preoperative procedures necessary. We think it is important that the contemplated operative procedure be explained to the patient and family and that they be realistically aware of its magnitude.

In the postoperative period graft failure may occur from inadequate runoff, leakage, or prolonged hypotension.

Graft failure most often results from inadequate runoff. With no patent distal bed to fill, blood dams up and there is stagnation and thrombosis. Graft failure may also result if there is excessive leakage through the graft wall causing hematoma formation and pressure on the graft. This can be avoided by the use of the tightly woven graft previously mentioned. Prolonged hypotension may result in decreased flow, collapse of the graft, and thrombosis within the graft and possibly the distal vessel as well. For this reason, we insist on maintaining the arterial tension during and after the operation at a minimum of 100 mm. Hg systolic. This is done with the use of whole blood and vasopressor drugs. In actual practice, Levophed in saline is attached to one of the intravenous fluid inlets and kept in readiness.

Operative sites are covered with loose dress-

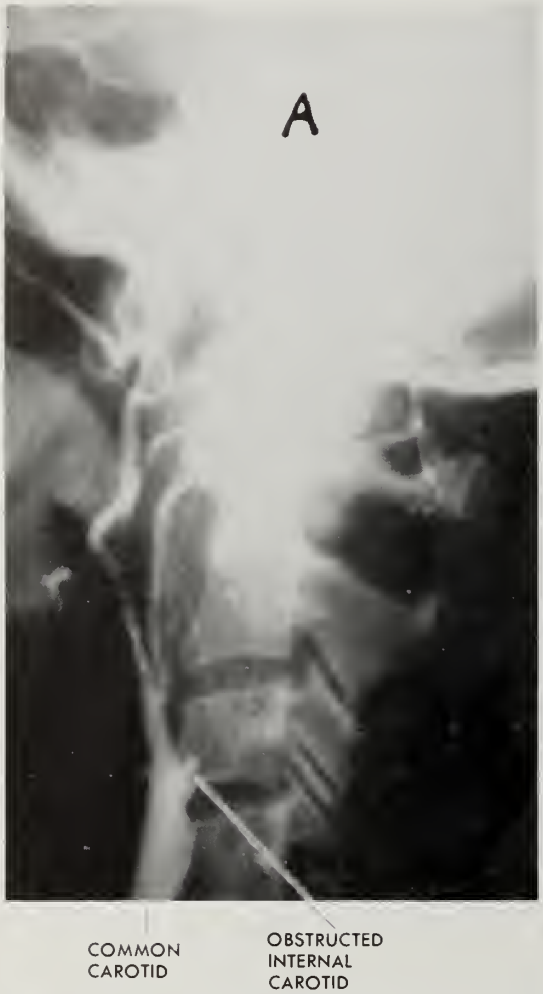

Fig. 1-A. Case 1. Percutaneous carotid arteriogram showing occluded internal carotid artery.

ings which are applied in linear fashion on the extremities. No circular dressings are permitted over the operative site or along the course of the graft. Ambulation is usually begun on the fourth postoperative day.

The following case histories illustrate management of arterial occlusion in a variety of locations.

Illustrative Cases

Case 1. *Carotid artery occlusion.* M. R., a 59-year-old white man, was first thought to have a brain tumor because of a 6 weeks' history of progressive headaches, paresis of the right arm, difficulty with speech, easy confusion, and periodic irritability. A carotid arteriogram, however, showed complete obstruction of the left internal carotid artery (figure 1-A). At operation, performed in December, 1958, the internal carotid and a portion of external carotid artery were found to be occluded by a heavy, thickened intima. Endarterectomy and removal of a large thrombus was effected (figure 1-B). No blood flow was obtained from the distal artery, but after gentle irrigation and aspirations, saline could be easily passed upward. The artery was repaired with fine silk. Since the artery had been completely occluded there was no need for hasty operative measures. Postoperatively there was marked improvement, and the patient has returned to his former task as a real estate agent. He is being kept on anticoagulants at low therapeutic levels.

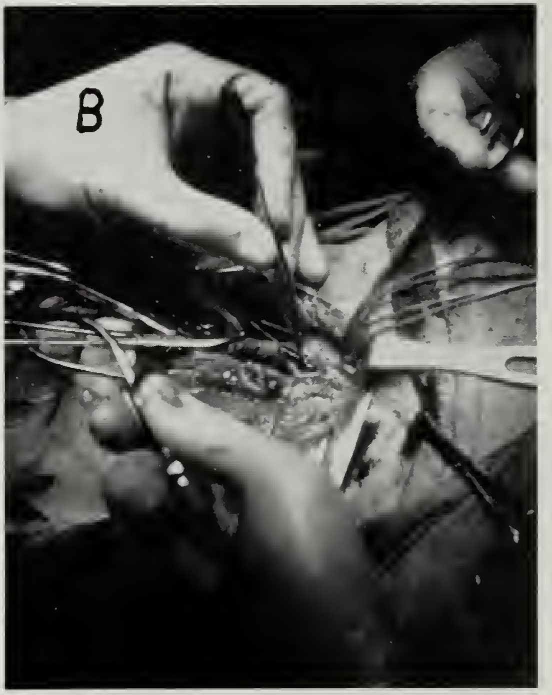

Fig 1-B. Case 1. Operative view, showing carotid artery running through middle of field. A longitudinal incision has been made in artery and thrombus is being evacuated.

It is now realized that carotid artery occlusion may mimic brain tumor. Carotid arteriography is an objective method in distinguishing between them. When the neurologic deficit is large and "fixed," one can expect little relief from removal of the clot. When symptoms have a sudden onset, or when there have been a number of short-spaced "little strokes," one can expect better results from an operative attack. The underlying cause is usually an atherosclerotic plaque, with gradual narrowing of the artery and subsequent thrombosis.

Case 2. *Abdominal aorta occlusion.* L. T., a 43-year-old white woman, was seen because of persistent low back pain and weakness of both legs. She had been examined recently by several competent orthopedists who recognized a plethora of disturbances: congenital hearing deficiencies, osteosclerosis, blue sclerae, and absent femoral pulses bilaterally. The patient was otherwise quite healthy. A pelvic examination ruled out gynecologic disturbances. A translumbar aortogram revealed occlusion of the abdominal aorta. There was no calcification of the vessels distal to the block, and collateral circulation could be demonstrated. Some calcification of the aorta could be seen in a lateral film of the lower vertebrae.

At operation the aorta was dissected free from a dense constricting mass of tissue (figure 2). An occluded inferior mesenteric artery was transected. A previously prepared "freeze-dried" aortic homograft was measured and tailored to length. The diseased lower aorta and short portions of both iliac arteries were excised. Heparin was instilled into the distal iliac arteries prior to clamping. The graft was then sutured into place with ease. After release of all clamps pulses returned immediately to both extremities.

This patient has done well for over a year and a half. There is still a minimal amount of low back pain which is a result of the bony disorder. A homograft, kindly prepared by the Tissue Bank, U. S. Naval Hospital, Bethesda, Maryland, was used at her request.

Occlusion of the aorta by arteriosclerosis is somewhat unusual in the female; it occurs in less than 1 per cent of patients in this age group. The violent tissue reaction surrounding the aorta suggested that this vessel was once acutely inflamed. It suggested the disorder first described by Leriche,[13] as opposed to the reaction seen in arteriosclerosis.

Case 3. *Abdominal aorta occlusion.* W. T., a 48-year-old white man, had been previously operated upon for intermittent claudication and absent femoral pulsations. At operation it was seen that there was atherosclerotic obliteration of the lower aorta and its bifurcation. At that time, 1949, grafts were not clinically available, nor were they in wide use. Lumbar sympathectomy was performed, and the patient's claudication disappeared.

Nine years later, because of a progressive rise in blood pressure, elevation of the blood urea nitrogen, and occasional bouts of left heart failure, he was hospitalized for reëvaluation. After adequate medical therapy, the left heart failure subsided, but an elevated blood urea nitrogen persisted. Retinal arteriopathy was noted. Femoral pulsations bilaterally were palpable but weak. The differential was whether this represented primary renal disease with hypertension, or a progression of the aortic thrombosis to the level of the renal artery. Most opinions favored the latter. An intravenous urogram taken 2 months prior to this admission showed excellent filling, but the left kidney was considerably smaller than the right. Differential excretory functions were considered but not undertaken. A high translumbar aortogram was performed with 8 c.c. of 50 per cent Hypaque. The mesenteric vessels were seen quite well, but no filling of the renal arteries could be observed. At operation the left renal artery was approximately 3 mm. in

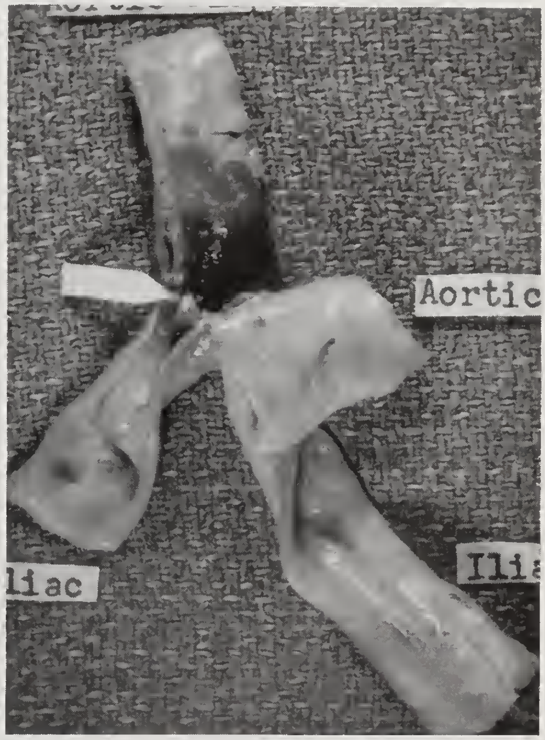

FIG. 2. Case 2. Resected specimen. Aorta has been opened to show plaque of calcium at mouth of right common iliac artery and large thrombus at the bifurcation. Lumen of inferior mesenteric artery may be seen on inner aspect of anterior flap.

diameter, had no pulsations, and was almost devoid of blood. The kidney was small and quite firm. The right renal artery pulsated normally, and the right kidney was larger than the left. The aorta was a solid flattened tube, surrounded by numerous calcified nodes. It was almost impossible to dissect it free. It was then transected and endarterectomy performed distally and into the iliac arteries. The orifice of the inferior mesenteric artery which had been occluded suddenly began to bleed furiously. On further investigation it was seen that a large collateral vessel from the region of the celiac axis had developed through the mesentery to anastomose with the inferior mesenteric artery. This proved to be fortuitous, because, while retrograde endarterectomy of the aorta was being attempted a large obstructing plaque could not be dislodged and had invaded all layers of the aorta. Accordingly, the vessels were repaired so as to permit the new-found collateral to supply the lower extremity via the lower aorta.

Postoperatively there was an uncomplicated recovery, with gradual decrease of the blood urea nitrogen. The blood pressure, which preoperatively had ranged above 250 to 260 mm. Hg systolic, gradually dropped to 150 mm. Hg. However, in a rather short follow-up period, it appears that this decrease has been only temporary. Blood pressure readings have risen from 170/120 at discharge to 210/140 3 months later.

This patient was considered for total replacement of the aorta from the diaphragm downward, or by-pass from the thoracic aorta to the lower aorta. However, the patient's condition would not tolerate such a lengthy procedure.

Resection of unilaterally diseased kidneys is often followed by a return to normal blood pressure, and we had hoped for this. However, it appears that no change for the better in the hypertensive picture will occur as a result of the operation. The patient has returned to his occupation, under close medical surveillance.

Case 4. *Aorto-iliac disease.* This case has been previously reported. J. B., a 45-year-old horse-trainer, had been frequently hospitalized for low back pain, epigastric pain, hip and thigh pain, and claudication of the calves. His treatment had been varied and ineffective. While being prepared for a femoral nerve block, the femoral artery, a handy landmark, could not be found. The diagnosis then unfolded slowly but with certainty. Both femoral pulses were almost absent, and the vessels distally were almost unpalpable. An oscillometric examination confirmed this. A translumbar aortogram showed that the aorta was markedly narrowed and obstructed just at its bifurcation but with patent vessels distal thereto (figure 3-A).

The patient was operated upon and a lengthy endarterectomy performed. This was unsuccessful. He was re-operated upon. Resection of the abdominal aorta from just below the renal arteries and including both iliac arteries was performed. A "freeze-dried" homograft was prepared and interposed (figure 3-B). On 2 occasions the patient later developed occlusion, once due to a dislodged calcific plaque, next due to thrombosis of a portion of the graft. These were relieved, and the homograft has now been in place for 5 years. Aortograms (figure 3-C) and examinations yearly for the past 4 years have shown no clinical deterioration of the graft.

This patient was originally operated upon in September, 1953. It was of some concern at that time that an operation of this magnitude might not be justified because of the extensive arteriosclerotic disease. Moreover, it had been argued that this was a local manifestation of a generalized disease. The results, however, have been most satisfying. The patient represents one of the long-term homograft successes.

Case 5. *Aorto-iliac disease.* R. S., a 53-year-old white male machinist, was admitted for evaluation of severely disabling hip, thigh and calf claudication. The pain of claudication required longer intervals of rest. Cramping pains in the calves would often wake the patient at night. His feet and legs required additional covers on cold nights. With some hesitancy he admitted impotence. Wasting of the legs was evident. There was no loss of hair or skin lesions. Rubor on dependency and blanching on elevation were marked. Both femoral pulses were weak; distal pulses were also weak, but equal. The aorta had a forceful bounce just below the umbilicus. Renal function was satisfactory. A translumbar aortogram revealed severe atherosclerotic disease of the aorta and iliac vessels, with a distal runoff. Knowledge of preexisting pulses in both lower legs indicated patent distal vessels.

At operation a severely calcified aorta, its bifurcation, and both iliac arteries were dissected out. Exploration of both common femoral vessels revealed them to be thickened on the posterior wall but quite soft on the anterior wall. The choice lay between excision and long graft, or by-pass. Because of a thickened calcified aortic wall above, no site for end-to-side anastomosis could be found. Accordingly, the aorta was amputated above the level of the inferior mesenteric artery. Both

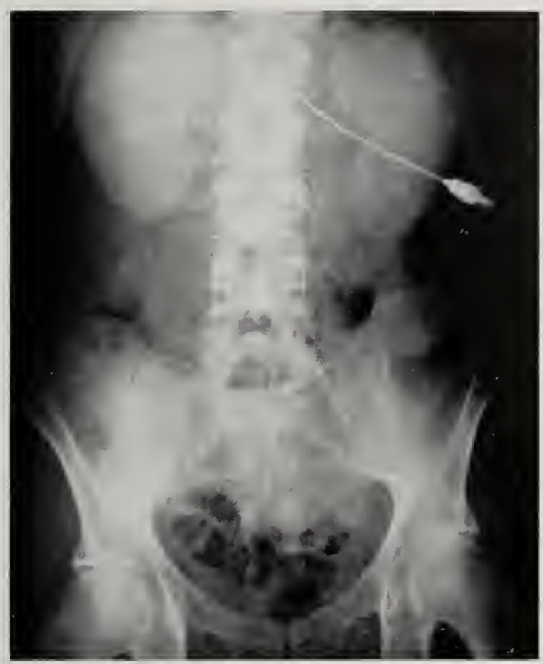

Fig. 3-A. Case 4. Aortogram made preoperatively.

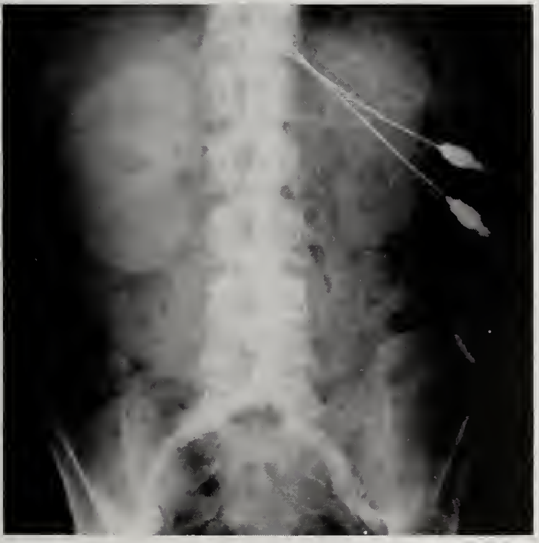

Fig. 3-B. Case 4. Homograft anastomosed and functioning.

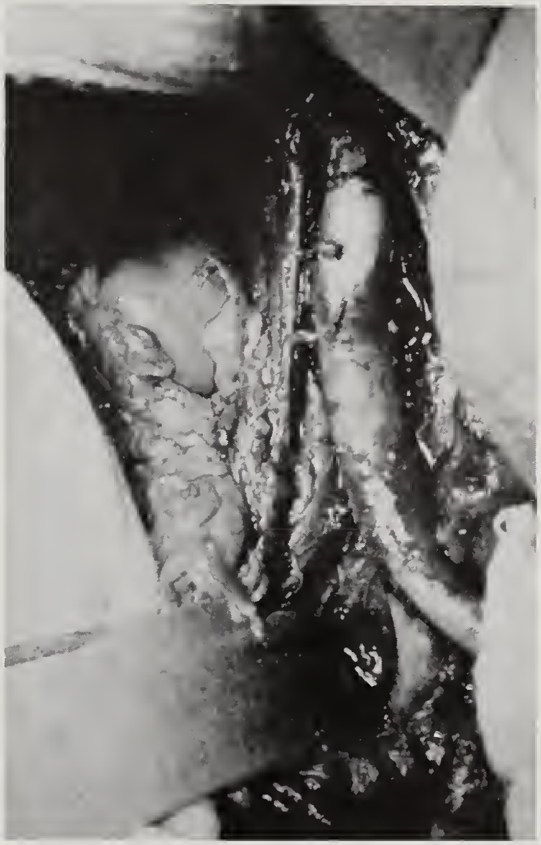

Fig. 3-C. Case 4. Aortogram made postoperatively.

common iliac arteries were amputated and their ends oversewn. A woven, crimped teflon bifurcation graft was then interposed into the defect, end-to-end above and end-to-side below into the common femoral arteries. The pulses returned but were no stronger than before operation. The postoperative course was uneventful. The claudication has not completely disappeared; that is, claudication on short walks is absent but develops after long walks. Night pain has been abolished, and the feet have become warmer. The patient is able to have intercourse with orgasm but cannot ejaculate. This appears to be a peculiar feature in a small number of patients following these operative procedures.

This patient exhibited rather extensive arteriosclerotic disease. The disease probably extends throughout the entire length of the vessels of the lower extremity. The thickened arteriosclerotic vessels cannot transport the greater volume of blood provided by the graft. Therefore, an operation in this type of patient does not always improve the blood supply to the legs.

Case 6. *Iliac-femoral artery disease.* J. J., a 63-year-old white man, had been bothered by crampy calf pains for 8 years. These were more severe on the right than on the left. Exercise tolerance had decreased to 1 city block. There was no impotence. Both feet were quite cool, and the right was colder by 3 degrees but was dry.

There was no back pain or loss of libido. Renal functions were satisfactory. A translumbar aortogram with a bolus of 20 c.c. of 50 per cent Hypaque showed obstruction of the right common iliac at the aortic bifurcation; the left common iliac, though diseased, filled well (figures 4-A and 4-B). There was no demonstrable major collateral flow or filling of the right femoral artery distally. Since distal flow or runoff is essential for the success of any reconstructive procedure, this had to be demonstrated. Plain films of the right leg showed calcification along the path of the superficial femoral artery. This finding, plus the dependent rubor, suggested rather extensive arteriolar disease. Little hope was held for any possible by-passing procedure. Nevertheless, it was planned to perform an operative arteriogram. The right common femoral artery was explored and was patent, but the superficial femoral was a solid tube. An operative arteriogram showed complete occlusion of the superficial femoral artery. Collateral flow from the profunda femoris filled the popliteal artery for a short length, but the runoff ended just after the division into the anterior tibial and posterior tibial arteries. In the absence of patent vessels to the muscle compartments, it was considered inadvisable to proceed with the operation.

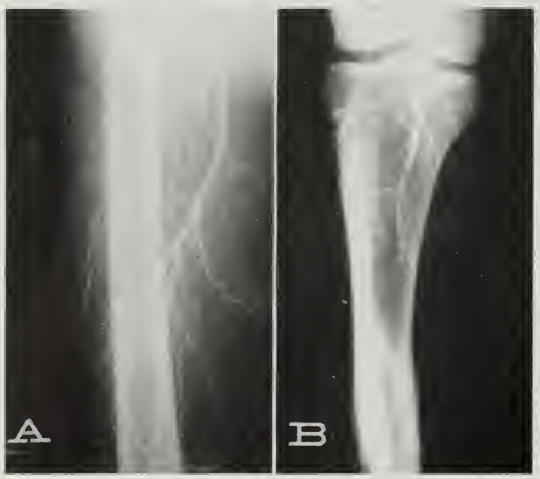

Fig. 4. Case 6. Arteriograms: (A) Profunda femoris is only patent vessel in thigh. Faint calcification path of superficial femoral artery can be seen. (B) Infragenual portion of popliteal artery is patent for a short distance. Note extensively "moth-eaten" appearance of vessel wall. This plus extensive calcification of all other vessels eliminated patient as an operative candidate.

The patient has been placed on a medical régime and frequent observation. Sympathectomy would not be beneficial here unless cutaneous breakdowns occur. This type of patient would probably lose a vital degree of flow if any graft procedures were attempted, since there is no place for the blood to flow, and damming with stasis in the graft would develop. Therefore, nothing further is justified at this time.

Case 7. *Femoral artery occlusion.* S. L., a 44-year-old white man, was referred for evaluation of a gradual increase of claudication of the right calf. The discomfort had become semi-disabling in an otherwise healthy man. He denied recent trauma. Femoral pulses were present in the right groin; all distal pulses were absent. Oscillometry showed a sharp dropoff at the knee. Femoral arteriography revealed a bizarre type of occlusion of the superficial femoral artery. Rather than a sharp cutoff, there was funicular narrowing. The profunda femoris communicated with the superficial femoral artery again at the knee. An aortogram ruled out proximal obstruction. The impression was that this represented arteriosclerosis obliterans with obstruction.

In November, 1958 the femoral artery was explored. Dissection revealed a dense fibrous zone surrounding the femoral sheath. This was denser than one sees in arteriosclerotic involvement and very similar to the scarring seen following trauma. Only the proximal portion of the vessel could be dissected out; the lower border stopped at the profunda femoris takeoff. Numerous small collateral vessels sprang out at this point, resembling a caput medusae. The profunda was patent; the femoral artery distal to this was almost a solid tube. The popliteal artery was exposed in its supragenual portion by a medial incision. It was found healthy and patent. A crimped 8 mm. teflon graft (BARD) was then interposed as a by-pass from the common femoral artery above to the popliteal artery below (figure 5). The pulses returned immediately, and the patient made an uneventful recovery. He has returned to his previous working status with no further claudication.

Further question revealed that he had sustained a blow to the leg during a basketball game many years earlier. This could conceivably have caused the bizarre type of occlusion. It would be unusual to find obstruction due to disease with such healthy vessels proximally and distally.

Case 8. *Aorto-ileo-femoral disease.* K. T., a 62-year-old lean, white man, a blacksmith, was evaluated for chronic low back pain of recent origin. A complete workup revealed a cool left leg, absent femoral pulses on the left, and blanching of the skin with the leg ele-

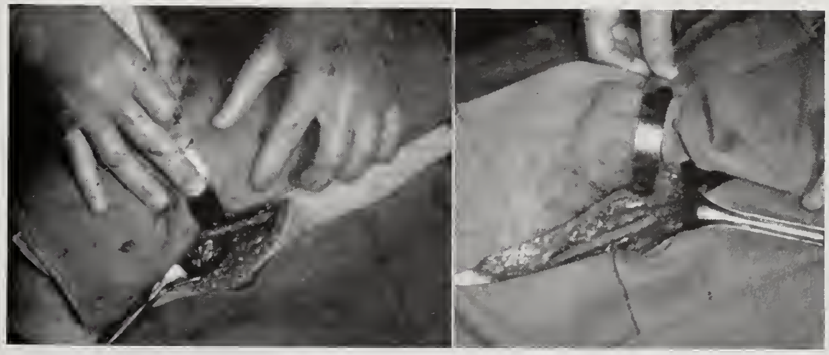

Fig. 5. Case 7. Operative views showing graft anastomosed above and below. Popliteal artery cannot be seen in depths of incision. Common femoral artery is seen below upper retractor on right. Graft runs in a subfascial tunnel prepared by blunt dissection.

vated followed by rubor on dependency. He was otherwise in good health. An aortogram revealed a block of the left common iliac artery at the bifurcation. Accordingly the left common femoral artery was examined at the operating table. It was found patent, but the superficial femoral was occluded. An arteriogram was performed with 15 c.c. of 50 per cent Hypaque solution. This showed that the distal popliteal artery was open and being supplied by the deep femoral artery. Therefore, a by-pass graft was anastomosed from the aorta, just below the renal vessels, threaded down beside the iliac artery, down Hunter's canal and into the side of the popliteal artery just above the knee (figure 6). It was also seen that the right common iliac artery had an isolated area of occlusion from an atheromatous plaque. An endarterectomy was performed here. All pulses could be felt satisfactorily postoperatively, the left leg with stronger pulses now than the original good right leg. Sutures were removed on the seventh day, and the patient was sent home. He has returned to his trade after a short rest, although a lighter task has been suggested.

In a small number of patients with rather extensive disease but in excellent physical condition a by-pass graft may be beneficial in detouring an extensive area of occlusion. It is often a quicker procedure than excision and grafting alone, or in association with endarterectomy.

Case 9. *Femoral artery disease.* H. W., a 52-year-old colored laborer, had been previously hospitalized because of low back and left thigh pain. He was operated upon for a protruded intervertebral disk; a spinal fusion was performed at the same operation. Eventually, an amputation had to be performed because of gangrene of the left leg. He was fitted with a prosthesis and returned to work, remaining gainfully employed until pain and cramping developed in the other leg. The pain gradually worsened, and the leg became cold. Finally the patient could no longer work, nor could he walk without pain.

Examination revealed a well-developed man in no distress. Femoral pulses were unequal bilaterally, the right being stronger than the left. The popliteal, posterior tibial and dorsalis pedis pulsations could not be felt. Oscillometry revealed a sharp drop in pressure below mid-thigh. The impression was that this represented an occlusion of the right superficial femoral artery.

In view of the patient's sincere efforts to continue working even though handicapped, he was considered a suitable candidate for further rehabilitation. A translumbar aortogram ruled out proximal obstruction on the right side, but revealed fairly extensive disease of

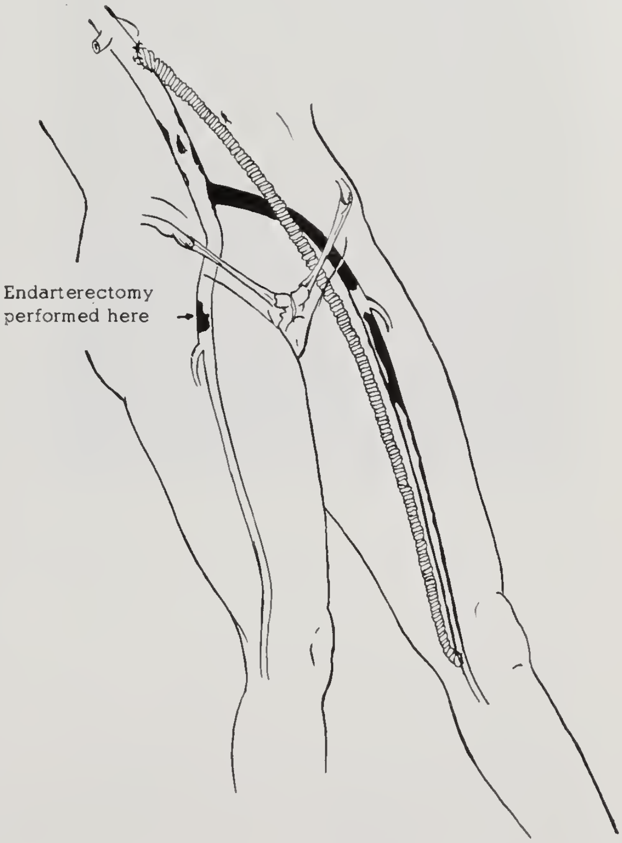

Fig. 6. Case 8. Artist's sketch showing length of graft.

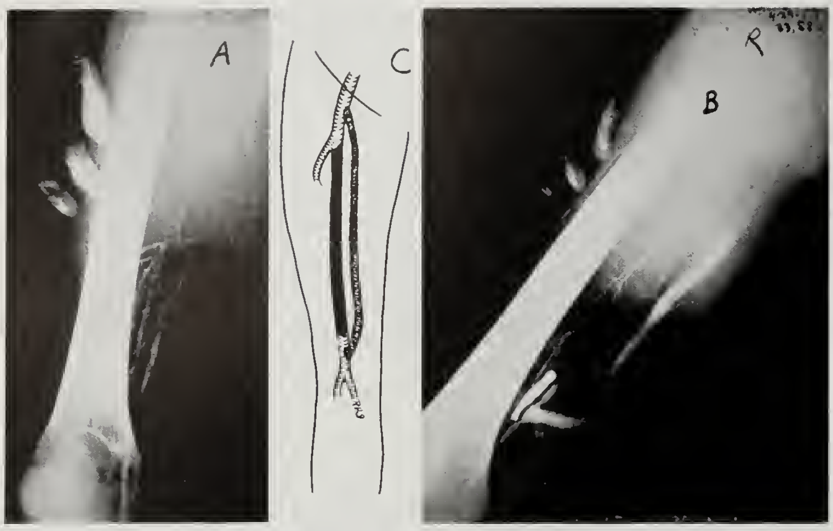

FIG. 7. Case 9. (A) Operative arteriogram showing extensive occlusion of superficial femoral artery but with patent popliteal artery. (B) After Teflon graft has been anastomosed. (C) Artist's sketch depicting graft from common femoral artery to popliteal artery.

the left common iliac artery. Collateral vessels from the profunda femoris artery on the right apparently connected with the popliteal artery.

It was planned to perform an operative arteriogram to substantiate runoff, then proceed with a by-pass graft. The arteriogram revealed complete occlusion of the superficial femoral artery, with a patent deep femoral artery and a patent popliteal artery, whose lumen appeared shaggy (figure 7-A). Nevertheless, the common femoral artery was exposed in the groin and the popliteal artery isolated above the knee through a medial incision. A long, knitted, crimped $\frac{5}{16}$-inch teflon graft was preclotted and anastomosed in end-to-side fashion from the femoral above to the popliteal below. The clamps were released and a pulsatile flow of blood entered the popliteal artery (figure 7-B and C). The dorsalis pedis and the anterior tibial pulsations returned immediately and have remained. The coldness, rest pain and numbness disappeared within 24 hours after the operation. The patient had an uneventful postoperative course and has returned to light duty.

Admittedly, there was the possibility of losing the remaining leg by proceeding with an operation. However, the operation could have been terminated at any stage of the exploration prior to the actual clamping of the arteries. When it could be seen that a patent vessel existed above and below the obstructed femoral artery, the risk of the procedure was worth taking because a successful outcome could be expected. By using a by-pass shunt fewer important collateral vessels would be damaged. This is one of the major advantages of this procedure. Another is that it is much shorter than the other procedures.

Occasionally a patient will present himself with a definite arterial occlusion but in addition have a condition which may contraindicate any operation.

Case 10. *Popliteal artery disease.* A. A., a 73-year-old white man, was seen because of incapacitating claudication of the left calf. Being rather vigorous, he enjoyed long walks but was handicapped by this pain. He had had 2 cerebral accidents in the past, with only a residual speech defect. Otherwise, no stigma of this cerebral insult remained. The legs showed excellent popliteal pulsations on the right but faint pulsations on the left. Oscillometry indicated a sharp dropoff in pulse pressure in the right popliteal space. A right femoral arteriogram (figure 8) was performed which revealed generalized arteriosclerosis of the entire vessel and 1 discrete area of partial obstruction of the popliteal artery with

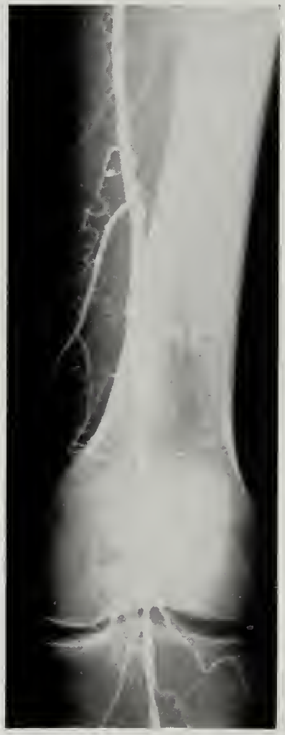

FIG. 8. Case 10. Arteriopram. Note extensive disease of entire vessel. Short, incompletely occluded area seen at evel of femoral condyles.

filling below this. The vessel distal to the obstruction was quite irregular and obviously diseased. It was hoped, after some deliberation, to perform an endarterectomy on this obstructed segment if feasible. The appearance of the vessel indicated extensive disease, and the chances of success lay only in a simple effective procedure.

The artery was exposed through a posterior approach. It was surrounded by the usual dense reaction and was adherent to the popliteal vein. The narrowed zone was easily found and on palpation suggested a calcified plaque. The artery was then opened and, with the use of fine dental instruments, the plaque, which was localized to the intima, was removed. The distal intima was then tacked down so as not to permit dissection, and the artery closed. The patient was placed on heparin and Dicumarol therapy at the time of operation. The pulse pressure increased immediately after operation and has remained so up to the last follow-up examination. The postoperative course was plagued by a *Staphylococcus aureus* infection with drainage spontaneously from the incision.

The result obtained here justified an operative approach. There is no further claudication except after long walks; the foot is now warm and dry.

Obstruction in the popliteal artery may be caused by primary arterial occlusion, or by the gradual compression of an aneurysm. An aneurysm may gradually occupy the fibro-fatty space without symptoms, but as the aneurysm descends it may gradually occlude the artery by torsion and become thrombosed. The results of surgical attack on this artery are not as satisfactory as on a large caliber vessel. The danger of distal thrombosis, especially when the artery is temporarily occluded during suturing, must be kept in mind. In general, resection and grafting should be reserved for aneurysms or discrete areas of occlusion. Endarterectomy is preferable if the lesion is short and discrete. Selection of patients should be quite careful, since operative failure here almost always means amputation.

Case 11. *Popliteal artery disease.* N. P., a 65-year-old white man, was admitted as a surgical catastrophe. This man was known to have had at least 1 previous stroke and had become deaf and somewhat confused. For the preceding 8 months he had complained of pain in the left calf on walking. No other history was forthcoming.

On the day of admission the patient experienced a sudden excruciating pain in the left knee, with ensuing coldness and loss of sensation in that knee and leg. By the time of admission there was purplish mottling of the skin, which was cold to the touch. No pulsations could be felt, and there was no filling of the veins. A large, firm rounded mass could be felt in the left popliteal space; a similar mass in the opposite popliteal space pulsated forcibly. These were obviously aneurysms, one patent, the other thrombosed.

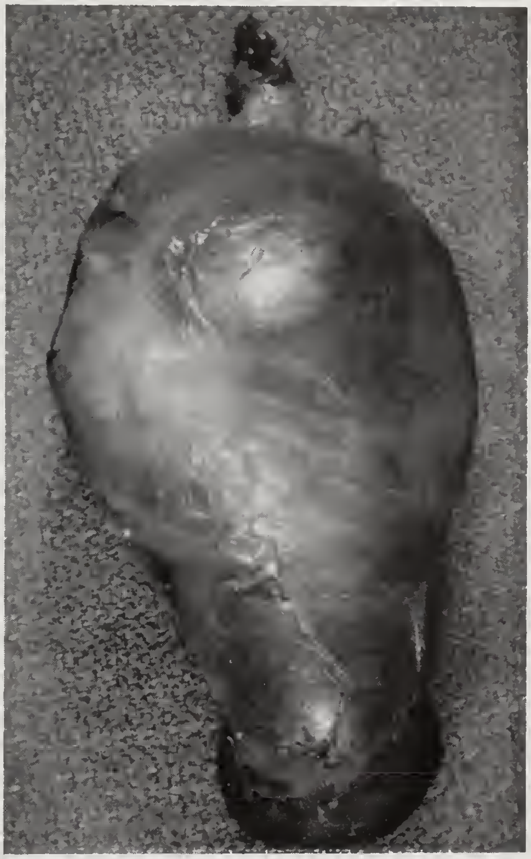

FIG. 9. Case 11. Thrombosed popliteal aneurysm.

The patient was operated upon immediately. A large thrombosed aneurysm (figure 9) was found which was rubbery, firm and pulseless. In order to find proximal and distal vessels the aneurysm had to be resected. The proximal artery was patent, but distally a firm organized thrombus was adherent within the vessel. Although irrigation and aspiration with dilute heparin was diligently carried out, it was impossible to clear the lumen. The posterior tibial artery was cannulated in the ankle, and a retrograde flush was attempted. This too was unsuccessful and was abandoned. The operation was terminated; after demarcation was completed, an above-knee amputation was performed.

This case is recounted to point out a fact and to emphasize the point that an aneurysm can suddenly thrombose and obstruct. For this reason, peripheral aneurysms, especially those in the popliteal space, should be resected while asymptomatic.

Case 12. *Popliteal artery disease.* F. R., a 62-year-old white male bus driver, had noted intermittent right calf claudication for 6 months, but this did not incapacitate the patient even though it was worsening. There were no other complaints until 3 months prior to this hospitalization, at which time night cramps in the affected calf developed. Then it was observed suddenly that the right fifth toe was extremely sensitive and cyanotic, changing to a deep purplish hue. This too became more painful, and the man sought medical advice.

Examination showed the discolored sensitive toe, and a cool right leg. There were faint dorsalis pedis and popliteal pulsations on the right, strong ones on the left. The other pulses were excellent. Oscillometry showed a sudden drop in pulse pressure at the level of the right knee. An arteriogram showed a short, sharp, partial occlusion of the popliteal artery, with a relatively healthy-appearing vessel above and below. This infarction of a digital artery is often a warning of impending thrombosis of the artery above. The demonstrated obstruction was ideally suited for resection and grafting.

At operation the artery was found to be surrounded by the usual dense scar tissue and adherent to the vein. A patent vessel could be palpated above and below the obstruction. A suitable length of crimped 8 mm. teflon graft was selected. The artery was transected above and below the obstruction but because of its intimate adherence to the vein left in situ. The graft was sutured into place, taking care to include the thickened intima with each stitch. Following the release of the clamps an excellent pulse could be palpated at the ankle. The infarcted area gradually demarcated and sloughed. The pulse remained full, and the patient had an uneventful recovery. He has returned to his former occupation as driver for a county school bus. He has had no further claudication or night pain.

SUMMARY

Direct methods of restoring arterial flow to ischemic extremities have been discussed. When a patient is having sufficient pain from local ischemia, diagnostic measures available to all physicians can rapidly localize the lesion. Current surgical technics and plastic grafts provide an optimistic approach to the alleviation of pain and preservation of extremities. A number of illustrative cases have been presented to emphasize certain points.

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PEPTIC ULCERATION OF STOMACH AND DUODENUM IN INFANTS

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PEPTIC ULCERATION in infancy carries a high mortality and differs in this regard from those cases seen later in childhood. Its occurrence in infancy was first reported by Cruveilhier[1] in 1829. Six children under the age of 12 months with this disease were treated on the Georgetown University Surgical Division, District of Columbia General Hospital, between 1951 and 1956.

Report of Cases

Case 1. A 1-month-old white male was admitted to the District of Columbia General Hospital on December 15, 1951 because of the onset of numerous loose, watery, green stools of one day before. No other history was obtainable. The infant was well developed but poorly nourished and dehydrated with a profuse serous discharge from the nose. Noisy, rhonchial breathing was audible. The anterior fontanelle was depressed. There were many moist inspiratory and expiratory rales throughout both lung fields.

An X-ray film of the chest was negative. A clinical diagnosis of diarrhea and bronchitis was made.

Initially the infant responded favorably to treatment, but on the fifth hospital day he vomited coffee-ground material and continued to do so intermittently for the next week. He was treated conservatively with intravenous fluids, blood, and nasal oxygen but on the fifteenth hospital day suddenly became cyanotic and died.

At autopsy 2 perforating duodenal ulcers, obviously the site of the massive gastrointestinal bleeding, were found.

Case 2. A Negro male, born April 8, 1952, at the D. C. General Hospital, presented symptoms of cerebral injury at birth but improved during the following 2 days. On the second day after delivery he commenced to vomit his feedings and became dehydrated. General examination was not remarkable, and digital examination of the rectum was accompanied by the expulsion of green liquid material. The vomiting became persistent and projectile and contained blood.

A week after birth roentgenologic examination revealed a dilated stomach with failure of barium to pass beyond the pylorus.

Surgical exploration of the abdomen was carried out on the following day under general anesthesia. Inasmuch as it was demonstrated that gastric contents could be readily propelled into the third part of the duodenum, a point of obstruction was not evident. However, blood was observed in the lumen of the small bowel. The operative procedure was limited to this exploration.

The condition of the patient deteriorated rapidly after surgery, with the development of abdominal distention and bloody vomitus. The infant died 11 days after birth.

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Postmortem examination revealed a mucosal fold partially occluding the lumen of the third portion of the duodenum. In the first portion there was a small bleeding ulcer, 3 mm. in diameter.

Case 3. A 3-month-old colored female was admitted May 12, 1954, to the D. C. General Hospital with a 3-day history of vomiting and the appearance of bloody stools on the day prior to admission.

Physical examination revealed a dehydrated, acutely ill infant with a rectal temperature of 104°F. She had intermittent episodes of apparently severe abdominal pain. The abdomen was markedly distended, but active peristalsis was heard. There was bloody mucus about the anus.

Roentgenograms of the abdomen showed small bowel obstruction with fluid levels.

Surgery was performed under general anesthesia, and an ileocolic intussusception extending to the sigmoid colon was found and reduced. No resection was necessary.

On the fifth postoperative day the patient had a tarry stool but continued to be febrile. One week after surgery it was necessary to repair a wound separation. On the eighth day the baby died after vomiting a large quantity of brownish liquid mixed with blood and mucus.

Autopsy revealed perforation of the ileum, generalized peritonitis, and posterior duodenal ulcers.

Case 4. Two days after his birth on July 12, 1954, a colored male baby vomited coffee-ground material on 2 occasions after feedings. Examination revealed a tense, tender abdomen, and only an occasional peristaltic sound was heard on auscultation.

Free air under both leaves of the diaphragm was demonstrated by X-ray examination, and the diagnosis of a perforated viscus was made.

Laparotomy was carried out under local anesthesia. A 3 mm. perforation was encountered on the superior anterior aspect of the first portion of the duodenum. This was closed with interrupted Lembert sutures of 4-0 silk.

The patient withstood the surgical procedure well, and recovery was uneventful.

Postoperative gastrointestinal X-ray examination revealed a normal gastrointestinal tract.

Case 5. A colored male, 3 weeks old, was admitted July 16, 1956, to the D. C. General Hospital with a 2-day history of anorexia without vomiting and diarrhea. Examination disclosed a severely dehydrated infant in clinical shock. The eyes were sunken, and the anterior fontanelle was depressed. Respiration was barely perceptible, and the deep tendon reflexes were diminished.

The patient improved on vigorous fluid and electrolyte replacement and on the third day of admission was tolerating oral feedings. On the fourth day the abdomen became distended and the patient began to vomit and failed to expel flatus or stool.

X-ray films of the abdomen revealed a large amount of air under the diaphragm, and a diagnosis of perforated viscus was made.

Nasogastric suction was instituted, and the patient was prepared for surgery. Under local anesthesia a small (0.5 cm. in diameter), well-defined perforation on the anterior surface of the first portion of the duodenum was found. This was closed with continuous 000 chromic catgut and a second row of interrupted 0000 silk.

In the immediate postoperative period the infant appeared in fair condition but vomited dark brown fluid on 2 occasions despite constant nasogastric suction. Twenty hours after surgery he died suddenly.

Autopsy revealed peritonitis with atelectasis and bronchopneumonia as the causes of death. Surgical closure of the perforation was adequate, and no other gastrointestinal lesion was demonstrable.

Case 6. A 2½-month-old colored female was admitted November 11, 1956, to the Pediatric Service of the D. C. General Hospital in a state of advanced dehydration and malnutrition. An unreliable history indicated that a bout of hematemesis and bloody diarrhea had occurred the day before. Intravenous Solu-Cortef and intramuscular Doca were administered in an effort to combat apparent adrenal insufficiency. In the 24 hours following admission the patient passed large amounts of dark blood per rectum and the hematocrit fell from 31 to 20 per cent. The baby appeared to improve on vigorous therapy consisting of blood transfusions and fluid and electrolyte replacement. On the third hospital day the abdomen became distended and the patient began to expectorate coffee-ground material.

An X-ray film of the abdomen revealed free air under the diaphragm. With the preoperative diagnosis of perforated viscus, the abdomen was explored under general anesthesia. A sharply defined linear perforation was found on the anterior wall of the first part of the duodenum. This was repaired with interrupted Lembert sutures of 0000 silk reinforced with an omental tag. On the anterior wall of the distal part of the stomach and on the anterior wall of the first part of the duodenum several linear hemorrhagic areas were observed, but no other site of perforation was identified.

The infant's postoperative condition was satisfactory until the fourth postoperative day, when she passed several tarry stools. In spite of transfusions of whole blood the hematocrit fell to 9 per cent, and on the fifth postoperative day the baby died.

Postmortem findings were massive gastrointestinal hemorrhage and multiple duodenal ulcers with perforation.

Comment

Of the 6 cases herein presented, the youngest patient was 43 hours old and the oldest 3 months. There were 4 male and 2 female patients. All ulcers were duodenal. In 5 of the 6 cases surgical repair was carried out, with survival of 1 patient. In the sixth case, the diagnosis was made at autopsy.

A clear-cut etiologic basis for the peptic ulcer was not apparent in any of the cases. Three of the patients had severe diarrhea prior to admission to the hospital and were clinically dehydrated. Two other patients had associated partial intestinal obstruction. One patient had been on adrenal steroid therapy prior to the perforation, but the history suggested gastrointestinal tract bleeding prior to the introduction of steroid therapy. Gastric distention with hypersecretion of gastric juices, mucosal changes secondary to dehydration, and the influence of adrenal cortical hormone are factors that may have contributed to the genesis of the ulceration.

A particularly unfavorable feature in 4 cases was the association of hemorrhage with perforation, which suggested a severe, acute type of ulceration. Furthermore, multiple or diffuse ulceration may be present in the duodenum and, despite closure of the perforated lesion, bleeding may persist from another ulcerated area; e.g., patient no. 6 was apparently recovering after surgical closure of a perforation only to succumb to continued bleeding from multiple ulcerations.

Delay in establishing the diagnosis of perforation was notable in several of these cases. In the absence of demonstrable pneumoperitoneum this diagnosis is undoubtedly more difficult than in the adult. Hematemesis, observed in each of our cases, is the most significant clinical evidence of ulceration. Abdominal distention, cyanosis and shock were evident in those patients with perforated ulcer.

While perforation and hemorrhage were responsible for death in 2 cases, atelectasis and bronchopneumonia, high intestinal obstruction, and perforation of the ileum following operative reduction of an intussusception were responsible for the fatalities in the others. Nonperforating ulcer was an associated disease in the 2 babies with partial intestinal obstruction. Of the 3 infants whose perforations were closed surgically, 2 died, 1 of atelectasis and bronchopneumonia and the other of recurrent hemorrhage from multiple superficial duodenal ulcers. This latter case would suggest that simple closure of a perforated duodenal ulcer may be inadequate surgical therapy. Although a more aggressive surgical approach is not recommended, it is undoubtedly true that with continued bleeding after simple closure of a perforated ulcer in an infant, prompt and vigorous surgical intervention is indicated.

Discussion

Over 600 cases of peptic ulcer occurring between birth and 15 years of age have been reported in the literature. One hundred and fifty-six cases, including the 6 cases of this report, or 26 per cent, occurred within the first year of life, of which 58 cases were found in infants under 15 days old (table 1). In a review of 156 collected cases, surgical intervention was employed in 27, with recovery in 10. The operative procedures included closure of the perforation, suture of the ulcer bed, pyloromyotomy, gastrojeju-

TABLE 1

Incidence of Peptic Ulcer in Infants and Children as Reported by Several Authors

Age	Number	Per cent
Birth to 15 years	600+	
Birth to 1 year	156	26
Birth to 15 days	58	10

nostomy and exploratory laparotomy. Only 1 infant survived when the operative procedure was more extensive than simple closure of the perforation or suture of the bleeding site. There were no survivors in the group without operation. The mortality for all cases was 93 per cent and for those treated surgically 63 per cent (table 2).

TABLE 2

Mortality from Acute Peptic Ulcer in Infants under 12 Months of Age

	Number	Survived	Per cent Fatality
Total	156	10	93.6
Operated for ulcer	27	10	63.0

In 59 of the 156 cases reviewed perforation occurred, and in 61 hemorrhage occurred (table 3). These 2 complications plus the occasional development of duodenal obstruction were the common indications for surgical treatment. Bleeding, diarrhea, dehydration, and the manifestations of major abdominal catastrophe including cyanosis, shock and a rigid, distended, silent abdomen were the signs and symptoms most commonly recorded.

TABLE 3

Incidence of Bleeding or Perforation in Acute Peptic Ulcers Occurring before Age of One Year

	Total	Perforation	Bleeding	Operated*	Survived
Bird, Limper and Mayer,[3] collected review	89	33 (37%)	47 (53%)	15 (17%)	3 (3.4%)
Other authors	61	21 (35%)	9 (14.7%)	15 (24.6%)	6 (9.8%)
D. C. General Hospital	6	4 (67%)	5 (83%)	5 (83%)	1 (16.7%)

* Includes surgery not related to the ulcer in 8 instances.

In the 109 instances in which sex was recorded there were 64 males and 45 females. In infants under 15 days there were 24 males and 20 females (table 4).

Forty gastric ulcers and 110 duodenal ulcers were reported in infants under 1 year of age. There were 28 gastric and 32 duodenal ulcers in infants under 15 days of age (table 4). Gastric ulcers in the latter group were associated with damage to the central nervous system in 11 instances, with pyloric obstruction in 3 other cases, and with erythroblastosis twice and cirrhosis of the liver in 1. Five ulcers have been reported in association with prematurity, and all were duodenal. Duodenal ulcer also occurred in 2 patients with damage to the central nervous system, and in 1 with cirrhosis of the liver. Duodenal ulcer occurred in 16 patients in whom severe infection was also present.

In our own series, 3 infants had been born prematurely, and all were under 4 months of age when peptic ulceration occurred. In every case signs of an acute abdomen were present. All ulcers were duodenal and there was no evidence of damage to the central nervous system.

Peptic ulcer has been reported in fetuses.[2] There is a decline in the number of recorded cases from birth to the age of 2 years which continues to the age of 7 years, at which time the incidence of the disease increases and approximates the adult type both as to symptoms and sex incidence.[3, 4] The disease is more prominent in males of all ages, but the difference is hardly striking during the early years. Holt[5] states that 70 per cent of cases in infants occur between the ages of 5 weeks and 5 months and that only 10 per cent are seen in the neonatal period.

Peptic ulcers in infancy are apt to be acute in onset and carry a high mortality, while those in childhood tend to be chronic, mimic the adult type symptomatically, and carry a lower mortality.

Kennedy[6, 7] has noted that signs and symptoms of peptic ulcers in children beyond the age of 2 years are "so diversified as to rob them of pathognomonic significance," but that in infants the symptoms are usually sudden in onset, and most commonly bleeding or perforation and occasionally obstruction are the presenting features.

Many etiologic factors have been suggested. Cushing[8] as early as 1932 demonstrated a relationship between brain lesions and ulcers. Cole[9] included as possible causative factors bacterial infections, meningitis, local inflammation, burns (Curling's ulcer), physical injury, and local vascular disturbance in the duodenal mucous membranes with subsequent autodigestion. Prematurity may play a role in many instances. Guthrie[4] and Adler[10] thought that local vascular occlusion as a result of birth trauma and autodigestion was a cause in their young infants. Quinn[11] thought that severe infectious diarrhea played a causal role. Markel[12] reported a case associated with fibrocystic disease of the pancreas, and Wright and Scott[13] presented a case in a 5-day-old male whose mother was preeclamptic and syphilitic. Tudor,[14] in addition to the previous mentioned causes, included poliomyelitis, snake bite and erythroblastosis and described a case in which stenosis of the sigmoid colon was found in association with duodenal ulcer. The role of gastric acidity in ulceration of the newborn has been studied, but results to date have been contradictory. Psychosomatic relationships may obtain in children with peptic ulcers,[15] but studies substantiating this have not been reported in infants.

TABLE 4

Sex, Age and Location of Peptic Ulcer in Infants

	Age	Sex		Location	
		Male	Female	Gastric	Duodenal
Bird, Limper, and Mayer[3]	0–14 days	15	11	12	26
Other authors	0–14 days	7	9	16	4
D. C. General Hospital	0–14 days	2	0	0	2
Total		24	20	28	32
Bird, Limper, and Mayer[3]	15 days to 1 year	22	15	8	43
Other authors	15 days to 1 year	14	10	4	31
D. C. General Hospital	15 days to 1 year	4	0	0	4
Total		40	25	12	78
Grand Total		64	45	40	110

Bleeding, perforated or obstructed peptic ulcers in infants should be treated surgically as soon as the baby has been properly prepared. Inasmuch as there may be several ulcerated areas it may be desirable to do a gastrotomy or duodenostomy for adequate visualization and suture of bleeding points. Review of the literature appears to suggest that the minimal operative procedure should be done and extensive resections avoided. It would seem to us that, when one is confronted with multiple bleeding ulcers with perforation, a reasonable approach would be subtotal gastric resection. The importance of good and continuous pre- and postoperative care cannot be stressed sufficiently.

Summary

Six cases of peptic ulcer in infants have been presented, and an additional 150 cases recorded in the literature have been reviewed.

Bleeding, perforation, and obstruction are the most common and severe complications in infants. The fatality rate of this disease is high.

(*Continued on page 66*)

WHAT IS GLAUCOMA?

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RECENTLY a great deal of attention has been focused on glaucoma. Attempts have been made to make the public aware of the widespread occurrence of the condition and to alert them of its danger signs. Magazines and newspapers have carried articles by authorities on glaucoma, and in some cities large-scale screening programs are being set up. This condition has been under extensive study by physicians primarily interested in eye diseases for many years, and it is frequently encountered by the ophthalmologist in his daily practice. It is generally not as familiar a subject to our colleagues in other branches of medicine, and since he is not called upon to examine and treat the eye for this condition, we thought a report might be helpful that would bridge the gap between oversimplification of the subject and the very technical and detailed papers that appear in the ophthalmological writings. This paper is an attempt to present a brief résumé of the subject of glaucoma, some of its historic aspects, its physiologic, anatomic and pathologic considerations, the signs and symptoms, the methods of diagnosis, and the current medical and surgical means used in its treatment.

DEFINITION

A simple definition of glaucoma is a difficult order. "High pressure within the eye" is the one commonly thought of by many, but elevated pressure is only one element of glaucoma, and glaucoma may exist without "high pressure." Sir Stewart Duke-Elder has presented what is perhaps the most accurate simple definition of glaucoma. He states that glaucoma is "that pressure which the tissues of the particular eye in question are not able to withstand without damage to their structure or impairment of their function."

"Glaucoma" is derived from the ancient Greek and appeared in the writings of Hippocrates. Literally it meant greenish or bluish and was used to describe the tint to the eye seen in blindness coming on with advancing years. The term included cataract and glaucoma and probably other conditions causing blindness. The early Christian writers described 2 conditions occurring behind the pupil causing blindness, the operable "suffusions" or cataracts and the inoperable glaucomata. The earliest clinical description of any accuracy of the condition appeared in the writings of an Arabian Sams-ad-din in the 14th century. Roger Bannister (1622) first described absolute glaucoma; the hardness of the eye in glaucoma was first described by Platzner in 1738; and the first clinical description of acute glaucoma in European literature was written by Beer in 1792. Introduction of the ophthalmoscope (early 1850's) resulted in descriptions of cupping of the optic disc and universal acceptance of elevated intra-ocular pressure as the prominent feature of the condition. Von Grafe (1857) proposed 4 subdivisions of glaucoma: acute, absolute, secondary, and amaurosis with excavation of the disc. Donder (1862) recognized the fourth as an incapacitating increased tension occurring without any inflammatory symptoms, or the condition of chronic simple glaucoma. The cause of glaucoma was attributed to many things over the centuries, including gouty iritis, serous choroiditis, irritation of the secretory nerves, thickening of the sclera, and hydrops of the vitreous. Knies and Weber both in 1876 described the frequency of obstruction of the angle of the anterior chamber. Priestley Smith (1879) reported research indicating that faulty outflow, not overproduction, was the cause of glaucoma. Paracentesis for treatment of the condition was first described in 1705. Von Grafe began to do the iridectomy in the mid-19th century, and use of miotics in treatment was first described in 1876. Iris inclusion filtering operations, iridencleisis, cyclodialysis, sclerectomy, and corneoscleral trephining were all described by various clinicians between 1900 and 1910.

As the term glaucoma has evolved from the "bluish or greenish tint to the eye" to our present concept of a distinct clinical entity with the cumulative observations of many centuries and the introduction of newer instruments to aid in studying the eye, attempts have been made to classify the various types and causes of glaucoma on a logical basis. Von Grafe's original classification into 4 subdivisions in 1857 was based on clinical observation and as a tribute to him has survived a century remarkably well.

Classification

Glaucoma is primarily divided into secondary and primary, or into those in which the cause is apparent and those in which the cause has yet to be found. Secondary glaucoma does not, therefore, present a great problem of classification, since its etiology is known and categories are changed as new causes are discovered. Primary glaucoma has suffered from the lack of knowledge of etiology, and thus many classifications have been proposed based on clinical description, anatomic discrepancies, and clinical course of the disease.

The conventional classification of primary glaucoma was based on clinical description and the course of the disease and was the widely accepted classification used and taught not too many years ago. It divided the glaucomas into acute congestive, chronic congestive, chronic simple, and absolute. This classification became further complicated by many modifications and synonyms. With the introduction of newer and better instruments to study the eye clinically and pathologically a newer and simpler classification has become generally accepted. Primary glaucomas are now classed as either open or closed (or narrow) angle. This was made possible by the use of the slit lamp and gonioscope to study the chamber angle and tonography to determine the facility of aqueous outflow from the eye. Use of these instruments has not only given us knowledge of the physiologic and anatomic factors involved in producing an increase in intra-ocular tension, but has also given us a more scientific approach to selection of treatment.

Pathogenesis

The eye normally has a through and through circulation of aqueous. Aqueous is formed mainly by the ciliary body behind the iris and passes from the posterior chamber through the pupil into the anterior chamber. Here there exists some exchange between the aqueous and the vessels of the intra-ocular structures. The main outflow channel is located at the anterior chamber angle where the root of the iris and the cornea approach one another. The aqueous passes through the trabecular network into the canal of Schlemm and is absorbed into the vascular plexus. The secretion and absorption of aqueous are under neurohumoral control. Simply stated, glaucoma almost always results from a decrease in the outflow or absorption of the aqueous, and the character of the disease depends on the location and extent of blockage of the outflow channel.

Closed-angle glaucoma results when the iris comes into contact with the trabecular region.

It has been found that at least three-fourths of the angle circumference must be occluded to produce elevation in the intra-ocular tension. Many factors determine the width of the anterior chamber angle, including the position of the iris attachment, the size of the lens, the thickness of the iris, the extent of development of the ciliary muscle, the size of the eye, the age of the patient, dilation of the pupil, accommodation, heredity, physiologic pupillary block, and congestion of the uveal tract. The patient with episodic rises in tension will be found between attacks to have a narrow chamber angle. Repeated attacks lead to progressive formation of anterior peripheral synechia, and outflow of aqueous from the eye becomes permanently impaired. Intra-ocular tension may then not return to normal levels between attacks. When the synechiae are first formed they are easily broken if the pupil is constricted, but if allowed to remain they soon become thickened and fibrous. Increased intra-ocular pressure in the acute attacks results in edema of the cornea with loosening of the corneal epithelium and formation of bullae. In long-standing glaucoma the iris atrophies and becomes fibrotic. The permanent functional damage to the eye results from increased pressure at the optic disc. There is compression of nerve fibers and bowing out of the lamina cribrosa with resulting atrophy of the visual nerve fibers which pass through it. Along with degeneration of the nerve fiber there is degeneration of the ganglion-cell layer and the nerve-fiber layer of the retina.

In the other adult primary glaucomas not characterized by acute attacks gonioscopic examination usually reveals adequate separation of the iris root and trabecula. Peripheral anterior synechiae are almost always absent. Tonographic studies have revealed that there is an early decrease in aqueous outflow. In open-angle glaucoma the block of aqueous must exist in the trabecula, Schlemm's canal or the aqueous veins. Pathologic examination of eyes with open-angle glaucoma in the early stages are understandably few. In those that have been examined very few abnormalities have been noted. In those with more advanced open-angle glaucoma examination has revealed sclerosis of the sclerocorneal trabeculae that often is marked enough to block the passage of aqueous from the chamber to Schlemm's canal. In some instances this is accompanied by increased hyaline deposits. In other instances increased amounts of pigment have been found in the trabecular spaces, but this has been demonstrated in eyes without glaucoma and cannot be indicated as the cause. The cornea does not generally suffer the damage that it does in closed-angle glaucoma and will tolerate the insidious rise in tension without marked pathologic changes. The posterior segment does not fare as well but will in time show excavation of the optic disc with atrophy and disappearance of the retinal ganglion cells and nerve fibers.

The congenital infantile and juvenile glaucomas similarly have not been fully explained by anatomic variation. It is generally agreed that elevated intra-ocular tension results from a malformation of the chamber angle, and treatment consisting of surgically establishing an angle by goniotomy has been generally successful. Pathologic changes include not only those noted in wide-angle adult glaucoma, but there is in addition a stretching of the sclerocorneal coat as a result of the increased pressure in the more elastic, youthful eye. In addition, the cornea is more likely to lose its transparency than in the adult wide-angle glaucoma.

The secondary glaucomas are the result of many different primary causes. The mechanism of glaucoma in most cases is the blockage of aqueous circulation by mechanical means. Secondary increase in pressure can result from inflammation, trauma, tumors, vascular accidents, degenerative changes in the structures of the eye, or systemic disease. Adhesions may form, constricting the anterior chamber or securing the iris to the lens with seclusion of the pupil and iris bombé formation. The outflow passages may become blocked by particulate matter floating in the aqueous. Inflammation results in exudation of cells and fluid from engorged blood vessels and increased protein content of the aqueous. Secondary glaucoma may follow an acute or a chronic course, and the effects on the structures of the eye are similar to those resulting from the open- and closed-angle primary glaucomas.

Diagnostic Procedures

In preface to the presentation of the clinical evaluation of glaucoma, a brief explanation of tonometry, tonography, visual field studies, gonioscopy and provocative tests should be helpful.

The term "tonometry" may be used to imply the measurement of resistance of the eyeball to deformation by forces or weights applied to the surface of the globe. The measurement is made to obtain an estimate of the intra-ocular pressure necessary to cause the eyeball to resist an external force. The intra-ocular pressure may be measured by (1) digital palpation, (2) instrumental tonometry, the applanation technic, or the Schiøtz-type tonometer, and (3) manometrically with the micromanometer. The mechanical principle of the tonometers now in use is either to measure the depth of the indentation produced by a constant deforming force or to increase the deforming force until an indentation of a certain depth is produced.

In tonography the equipment consists of an electronic Schiøtz' tonometer connected to a recording galvanometer so that a continuous record of the indications of the tonometer is provided on a moving strip of paper. The tonometer is applied to the cornea in standard fashion but allowed to rest for several minutes (usually 4). During the time the tonometer rests there the intra-ocular fluid is forced out of the eye more rapidly than normal and, as is well known, the tension gradually falls. It has many times been observed that the tension falls more slowly in glaucomatous eyes than in normal eyes.

In glaucoma the disturbance of function depends upon the excavation of the disc and atrophy of the nerve fibers. This results in degeneration of the various nerve-fiber bundles with characteristic visual field defects. Visual-field studies then become a valuable method of investigation, not only to establish the presence of the disease but also to measure its progress, estimate its prognosis, and assess the value of the treatment. The more typical field defects include enlargement or baring of the blind spot, juxtacecal steps, arcuate scotomata, nasal defects, severe constriction of the field, and complete loss of field.

The angle of the anterior chamber is of particular importance in the study and classification of glaucoma but is normally hidden from direct view by the overlapping sclera at the limbus. If, however, the refraction of the cornea is neutralized by the application of a suitable contact lens, it is possible to examine the angle microscopically. The contact lens may be dome-shaped, as in the Koeppe and Barkan designs, or conical with a mirror to reflect an image of the angle forward, as in the Goldman type. The dome-shaped lenses are designed for use with a hand-held loupe or hand-held microscope, whereas the Goldman lens is for use with the slit-lamp and biomicroscope. This is referred to as gonioscopy. It is through this examination that the normal landmarks can be visualized into the base of the ciliary body in open angles and are hidden from view just as effectively in narrow angles. The gonioscope is necessary to note the presence of anterior synechiae, tumor tissue, particulate matter, or developmental faults in the angle.

Occasionally the above-mentioned studies may need support from certain provocative tests. A provocative test is employed to provoke a rise in tension in an eye which is suspected of having latent glaucoma. There have been many such tests developed in the past. Of the more commonly mentioned tests the following are representative: (1) the water-drinking test, (2) the caffeine test, (3) the cold pressor and lability test, (4) the reading test, (5) the dark room test,

(6) the mydriasis test, (7) the adrenalin test, (8) the pilocarpine test, (9) jugular compression test, (10) the priscol test, and many others. In open-angle glaucoma, the water-drinking test is of value, and of even more value is the water-drinking test combined with tonography. In narrow-angle glaucoma, if a provocative test is needed, the dark-room test is often sufficient.

All the provocative tests deal with only one symptom of glaucoma, the ocular hypertension. Their value must be limited, since hypertension and glaucoma are not synonymous. The ideal provocative test does not yet exist. All of them are time-consuming and sometimes disturbing to the patient, and all fail in a certain percentage of glaucomatous eyes.

Clinical Features

The clinical features of glaucoma are to be demonstrated here by presenting representative cases. The case histories and clinical findings of both open-angle and closed-angle (narrow-angle) types of primary glaucoma will be presented.

In the case of open-angle glaucoma the patient who is more than 40 years of age has noted vague changes in vision over the preceding several years. Several practitioners were consulted, with frequent changes in glasses, and, while these changes were expensive, they were of little or no benefit to the patient. During these years the patient was lulled into a false sense of security, and the ravages of the unrecognized disease went on unmolested. Finally, at the insistence of relatives, the family doctor was consulted, a careful history was taken, and a detailed physical examination was made. The history uncovered a few important clues—the nature in which the vision had been failing, along with facts that pointed to a couple of relatives who had lost vision in rather vague and insidious manner. The family doctor referred the patient to the ophthalmologist, who in turn learned from the history that the patient's vision had become dim, the side vision seemed to be defective, and definite difference had developed in the 2 eyes. There was no history of congestion or pain, but the history of failing vision dated back over several years. Examination of the eyes revealed visual acuity which was correctible to 20/20 in each eye. The external examination revealed no abnormality of the lids, lacrimal apparatus, conjunctivae or adjacent tissue. The extra-ocular movements were within normal limits, and the pupils were equal and slightly dilated but reacted slowly to light and accommodation. The sclera appeared normal, except perhaps for a slight circumcorneal flush in each eye. The cornea and aqueous were clear in each eye. The anterior chamber was of average depth, and examination of the angles with the gonioprism and slit lamp revealed both eyes to have open angles. On ophthalmoscopic examination of the eyes the media were seen to be clear, but there was excavation of each optic nerve head, the retinal vessels were pushed nasally, and there was ribboning of the vessels where they came over the margins of the optic cups. The (intra) ocular tensions were measured with a Schiøtz' tonometer and found to be 40 mm. Hg in the right eye and 35 mm. Hg in the left eye. The diurnal variation of the (intra) ocular tension varied from 10 to 20 mm. Hg, being highest in the early morning hours. Tonographic studies revealed a decreased facility of aqueous outflow, more exaggerated in the right eye. The visual-field studies revealed marked changes in the right eye, with moderate but typical changes in the left eye. The central areas of both fields had been preserved. A diagnosis of glaucoma was made on the basis of changes in vision, loss of visual field, increased (intra) ocular tension, excavation of the optic nerve heads, and decreased facilities of outflow in each eye, and open-angle glaucoma was predicated from the appearance of the angles and anterior chambers, as seen with the gonioprism and slit lamp. The onslaught of glaucoma of this type is typically slow and without obviously definite symptoms, and there had been visual loss which will never be regained. It now becomes a problem for the patient and the doctor to try to halt the devastating progress of this disease, and this can be attacked either medically or surgically, and often it is necessary to combine the forces of each.

In striking contrast to the case of open-angle glaucoma, the patient who has narrow-angle (closed-angle) glaucoma presents a history of episodes, characterized initially by irregularly occurring rises in tension associated with transient appearance of halos and mistiness of vision which may culminate in an acute, unremitting attack of elevated tension. On the other hand, there may just be 1 acute attack with no prodromata at all. There is nothing vague about the manner in which this disease strikes our second patient. In the acute attack there is excruciating pain in the frontal region, which often radiates down over the face and into the jaw. Nausea and vomiting accompany this severe pain, and the constitutional disturbances are marked, giving rise to bradycardia, pallid face, and cold extremities. Profuse lacrimation is present, and the vision is affected rapidly if the disease is of rapid onset. The visual acuity ranges from foggy vision to faulty light perception.

Examination of this patient reveals edema of the lids, and there are various degrees of chemosis and conjunctival congestion. Often there is a circumcorneal flush, although the entire globe may be nearly blood red. Lacrimation and photophobia are commonly noted, but if the tension has been very high the cornea may be completely anesthetic. The cornea varies from just hazy to frankly opaque, but if the anterior chamber can be visualized it will appear very shallow. The pupil is large and irregular and reacts sluggishly if at all to light. Ophthalmoscopically a red fundus reflex may not be obtained if the media is sufficiently clouded, but if one is able to see the fundus the retinal arteries may show pulsation and the veins congestion and engorgement. As a rule, the disc will not be excavated, but it will have a hyperemic appearance. Tactile tension will find a stony hard eye, which is tender to the lightest touch. Examination with the slit lamp reveals an edematous cornea. The epithelium is frosted in appearance, and may be raised in blebs and bullae, while the stroma is less transparent and is thicker than normally seen. The anterior chamber is very shallow, and the iris assumes a muddy appearance. The lens, also involved in the process, may become edematous and opaque, and the vitreous undergoes opacification too. Tonometry reveals an (intra) ocular tension of 60 mm. Hg or more. If the tension is swiftly normalized the changes in the lens and vitreous are reversible, but if bullae are formed on the surface of the cornea, microscopic or even maçroscopic scars may be noted later.

The diagnosis is made, and there is no reason to perform tonography, provocative tests, etc., but rather the tension must be relieved as quickly as possible. All efforts must be made to accomplish this goal.

Secondary glaucoma may occur in the form of chronic glaucoma or may start as an acute attack. The cause of the increased intra-ocular pressure is often due to a decrease in the free communication between the posterior and anterior chambers or to the mechanical obstruction of the drainage channels for the intra-ocular fluid. The difficulty may lie in the region of the chamber angle, or there may be some dysfunction of the absorptive ability of the anterior iris surface. An increase in tension may occur in diseases in which there is a derangement in the circulation of the blood in the eye. In many other cases no definite cause can be shown to account for the increase in intra-ocular pressure. Secondary glaucoma may arise from diseases of the cornea, iris, choroid, retina, and lens and from lens displacement, intra-ocular tumors, trauma, stasis of the orbital veins, and various congenital changes of the eye.

DIFFERENTIAL DIAGNOSIS

Differentiation of primary glaucoma from secondary glaucoma is obligatory from the viewpoint of therapy. Some think that secondary glaucoma should not be classed and described under glaucoma, since they believe that it is only a condition of intra-ocular hypertension, with attendant symptoms, due to some recognizable cause. The glaucomatous character of this condition may vary from simple hypertension closely resembling a mild open-angle glaucoma, through all the gradations to a violent outburst of hypertension with all the characteristics of an acute closed-angle (narrow-angle) glaucoma. If the hypertension is not relieved by elimination of the cause the eye will lose function exactly as in primary glaucoma.

In the preliminary examinations one must be able to identify or to rule out diseases of the eye which cause this intra-ocular hypertension. The history, both past and present, often gives valuable clues of eye disease. Examination in secondary glaucoma will usually reveal diseases of the cornea, iris, lens, choroid, or retina, and there may be certain systemic diseases which are frequent offenders, along with intra-ocular tumors, a history of trauma, etc.

Congenital glaucoma, often associated with buphthalmos, is primarily a disease of infancy and is also called infantile glaucoma. It is mentioned here primarily for the sake of completeness. The cause of congenital glaucoma has remained elusive, although there have been several theories advanced to try to explain its etiology.

Therapy

The management of glaucoma presents one of the most difficult problems that confronts the ophthalmologist. The present concept of the pathogenesis of the various types of glaucoma provides the basis for the form of treatment currently being used. Open-angle glaucoma requires measures that will either enhance the outflow of, or reduce the production of aqueous. Closed-angle glaucoma is treated by steps that prevent angle-blockage. Finally, secondary glaucoma therapy must be directed toward the specific factors causing the glaucoma.

The management of any case of glaucoma is directed toward preventing further loss of vision or damage to ocular tissue. A careful evaluation of these factors affords the ophthalmologist a definite guide as to the adequacy of treatment.

One of the most important things in the treatment of glaucoma is its early detection. This is especially true of primary glaucoma of the wide-angle type, which is very insidious in its onset. Too often considerable irreversible ocular damage has been done before the condition is discovered and treatment instituted. Currently much publicity is given to patients concerning routine eye examinations by qualified examiners. This advice cannot be overly emphasized, especially in patients over 40 years of age and those who have a family history of glaucoma.

In general, the medical treatment of glaucoma is more desirable when indicated and as long as it adequately controls the glaucoma. Surgical treatment is indicated in angle-blockage glaucoma, cases that are not adequately controlled by medical management, and in cases in which the patient is uncoöperative or unreliable. At times both surgical and medical treatment must be combined to satisfactorily control a case.

There are many drugs in the armamentarium of the ophthalmologist for the treatment of glaucoma, and most of them fall into the autonomic drug group. The miotic drugs are still the most important drugs and the most widely used in glaucoma therapy. The miotics not only constrict the pupil, thus pulling the iris away from the filtration angle, but recent evidence shows that they lower intra-ocular tension by increasing the facility of aqueous outflow. The use of miotics in glaucoma therapy finds its greatest indications in the management of the primary glaucoma.

The pharmacologic action of the autonomic drugs is still not fully understood. According to the concept of chemical mediation of nerve impulses, the parasympathetic innervation of the sphincter muscle of the iris and the ciliary muscle of the ciliary body is cholinergic, and the chemical mediator is acetylcholine. At the cholinergic nerve endings acetylcholine faces destruction by a specific enzyme called cholinesterase. Therefore, drugs that inhibit the activity of cholinesterase potentiate the effect of acetylcholine.

There are 3 main groups of miotics currently used. First, the cholinergic group represented by Mecholyl, 5 to 20 per cent, and Doryl, 0.75 to 1.5 per cent, whose administration imitates the action of acetylcholine. Second is the anticholinesterase group represented by physostigmine (Eserine), 0.50 to 1.0 per cent, Prostigmin, 5 per cent, and di-isopropyl fluorophosphate (DFP), 0.1 per cent, whose administration potentiates the effect of acetylcholine by inhibiting cholinesterase activity. The third group is the pilocarpine group, represented by pilocarpine, 1 to 8 per cent, which acts directly on the muscle cells of the cholinergically innervated structures. The above drugs used in certain combinations have a synergistic action resulting in a greater therapeutic effect.

In the past few years the advent of carbonic anhydrase inhibitors has revolutionized the treatment of glaucoma. Diamox is the representative of the group currently used by most ophthalmologists. Diamox is a derivative of the sulfonamides but exhibits no antibacterial effect. Its therapeutic benefit is due principally to its inhibitory effect on carbonic anhydrase activity. Although Diamox is primarily useful as a diuretic, it has an additional action of reducing the formation of aqueous humor which provides another method of controlling intra-ocular tension.

The parasympathetic blocking agents, represented by atropine, scopolamine and their synthetic alkaloids, have a definite role in glaucoma therapy, particularly secondary glaucoma. The blocking effect of these drugs is not fully understood, but it is believed that they prevent the chemical mediator of the parasympathetic nerves, acetylcholine, from reaching the effector cell. Atropine-like drugs are used primarily for their mydriatic effect in an attempt to prevent or free synechiae as well as a means of placing an irritated eye at rest.

The adrenergic drugs represented by Neo-Synephrine, 10 per cent, and Paredrine, 1 to 2 per cent, are also used clinically in the treatment of glaucoma. The drugs are used primarily in secondary glaucoma for their mydriatic effect. Epinephrine bitartrate, 1 per cent, has been found to be effective in the control of certain cases of wide-angle glaucoma. It has been shown that a fall in intra-ocular pressure induced by this drug is due to a decrease in the rate of aqueous formation. Occasionally epinephrine bitartrate causes an increase in the intra-ocular tension, but this is less likely to occur if it is used in conjunction with miotics.

Sedation at times may be required during the acute attack in closed-angle glaucoma and occasionally in secondary glaucoma. However, since the advent of carbonic anhydrase inhibitors the need for any prolonged use of sedation or the retrobulbar injection of procaine anesthesia in acute attacks of closed-angle glaucoma and the paracentesis in secondary glaucoma have practically fallen into disuse.

The surgical management of glaucoma certainly plays an important place in the therapy of certain types of glaucoma. Angle-blockage glaucoma is usually permanently cured by relieving the blockage simply by making a communication between the anterior and posterior chambers. This is accomplished surgically by making an opening in the iris periphery, such as by means of a peripheral iridectomy or peripheral iridotomy. Wide-angle glaucoma requires some supplemental method of outflow of aqueous. This is accomplished surgically either by the internal or external filtration method. The internal filtration method, such as cyclodialysis, filters the aqueous out into the suprachoroidal space. The external filtration method, such as corneoscleral trephine or iridencleisis, filters the aqueous out by means of an iris wick into the subconjunctival area. The cyclodiathermy procedure reduces surgically the ability of the ciliary body to produce aqueous. This is done by means of controlled diathermy directly over the ciliary body through the scleral coat.

Let us now consider more specifically the management of primary glaucoma. In the treatment of open-angle glaucoma, the commonest of the primary glaucomata, the general trend continues in the direction of conservative or medical management unless surgery becomes mandatory because of progressive loss of visual field. Medical management is popular, not only because of the complications and poor postoperative results of surgery, but also because of the availability of more effective drugs for the control of glaucoma.

Although the pathogenesis of open-angle glaucoma is not entirely understood, tonography and gonioscopy indicate that the basic defect is a reduction of aqueous outflow due to obstruction in the filtration mechanism probably beyond the trabecula of the angle itself. A few cases of hypersecretion of aqueous humor have been reported. Treatment must be directed toward these currently accepted pathogenic factors.

The first step in the management of open-angle glaucoma should be the use of the simpler miotics. It has been demonstrated tonographically that the major effect of miotic therapy is by increasing facility of the outflow. If the case is not adequately controlled, subsequent steps would be to increase the strength or alter the time interval of the miotic. Often it is necessary to shift to another type miotic which may be more effective. If the glaucoma is still uncontrolled, the use of an aqueous inhibiting agent such as 1 per cent epinephrine bitartrate locally or carbonic anhydrase inhibitors systemically may be added. Finally, but not until medical treatment has failed, does one resort to surgical intervention. Surgery is directed toward the enhancement of aqueous outflow, either by an internal or external filtration procedure or surgical suppression of aqueous formation. Following surgery, the medical therapy may be discontinued entirely or it may be greatly reduced. At times in an uncoöperative or unreliable patient early operation may be the more practical therapeutic approach.

The choice of surgical procedure varies with the experience of the individual surgeon. An external filtering procedure such as the corneoscleral trephine or the iridencleisis is the type most often used. In some quarters cyclodiathermy procedure, which reduces aqueous formation, has been used extensively in the Negro race.

The management of closed-angle primary glaucoma is entirely different from that of open-angle. Here the treatment is surgical rather than medical. Closed-angle glaucoma is considered curable provided it is treated surgically. Medical control of closed-angle glaucoma is considered only a means of preparing the eye for some type of surgical procedure except in a very old and feeble patient.

The pathogenesis of closed-angle glaucoma is a blockage of the filtration angle by forward protrusion of the peripheral iris, but the filtration mechanism itself is usually functioning adequately. Therefore, the only requirement is some procedure that will prevent further attacks of angle closure. However, when the patient experiences an acute attack the eye is painful and acutely congested and has a very high tension. Such a case requires emergency medical treatment consisting of the use of intensive miotics topically, adequate systemic administration of carbonic anhydrase inhibitors, and, in certain cases, sedation. Since the advent of carbonic anhydrase inhibitors emergency surgical intervention is usually no longer necessary. Conservative medical treatment usually permits the eye to quiet down so that the definitive surgery may be done under more satisfactory conditions.

How long one should temporize with nonsurgical therapy is a debatable question. Medical treatment, however, should be continued as long as the tension is falling or until it becomes stabilized. Prolonged use of carbonic anhydrase inhibitors is not recommended, since it tends to hold the tension down without relieving the angle block and thus predisposes to further obstruction of previously serviceable filtration areas. Carbonic anhydrase inhibitors also may give the patient and the ophthalmologist some false sense of security, resulting in undue delay of necessary and effective surgery.

As soon as the case is as well under control medically as possible, a surgical procedure should be carried out. Preoperative tonography at this time provides useful information which will help in a decision as to the type of surgery to be performed. Repeated angle attacks or a prolonged angle-closure attack would predispose to permanent obstruction of angle-filtration areas. In such cases an iridencleisis should be considered, since a peripheral iridotomy or iridectomy would not suffice to control the glaucoma.

In all cases of closed-angle glaucoma the fellow eye should be carefully examined and the question of prophylactic surgery in the form of a peripheral iridectomy considered.

The treatment of secondary glaucoma depends upon the cause of the glaucoma. Once the etiology has been established, if possible, all treatment is directed toward removal of the cause. In recent years the treatment of secondary glaucoma has been enhanced by the advent of carbonic anhydrase inhibitor drugs and the steroids. The carbonic anhydrase inhibitor drugs usually help to control the rise in ocular tension until such times as the basic cause is brought under proper therapeutic management. Indiscriminate use of the steroids to control ocular inflammation and reaction is condemned. There are certain specific indications and contraindications for the use of steroids which should be closely followed. Miotics are usually contraindicated in secondary glaucoma, but mydriatrics have an important place in the management of this condition. Since the advent of carbonic anhydrase inhibitors surgical intervention is usually not indicated except in certain specific cases.

The management of developmental type glaucoma, such as congenital, is now much more rewarding because of the progress being made in newer ocular instruments and surgical technics.

In the past few years the public has been made aware of the widespread occurrence of unrecognized glaucoma. A review of glaucoma along with some of the current concepts of diagnosis and treatment has been presented. It is hoped that this review of basic knowledge and résumé of some of the current literature will be helpful to our colleagues.

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ACTINOMYCOSIS OF THE PERICARDIUM

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ACTINOMYCOSIS of the pericardium is rare, but it should be considered in the differential diagnosis of obscure forms of pericarditis. The 3 cases here reported from the files of the Armed Forces Institute of Pathology serve to emphasize this point.

Cornell and Shookhoff,[1] reviewing the literature in 1944, found 67 cases with various types of cardiac involvement in actinomycosis. They reported 3 additional cases. Endocarditis due to actinomycosis was discussed by Wedding[2] in 1947, with description of 2 cases. Probably the first reported clinical pericarditis due to actinomycosis was published by Zoeckler[3] in 1951. In a recent summing up, Bates and Cruickshank[4] gave 78 as the total number of reported cases with infection of the heart or pericardium. The presenting clinical picture was seldom, however, that of cardiac disease.

It may be acceptable to speak of primary actinomycosis of the pericardium, as has been done in tuberculosis,[5, 6, 7] when the clinical manifestations are restricted to the pericardium. Strictly speaking, however, and from a pathogenetic point of view, tuberculous pericarditis is invariably secondary to a focus elsewhere,[8] the infection being spread to the pericardium either hematogenously, by contiguity through lymphatics, or by direct extension.[9] Rupture of a caseous lymph node into the pericardium has been demonstrated in several instances.[10] But the peculiarities and the characteristics of behavior of either etiologic agent do not allow for pursuing a close parallelism between actinomycosis and tuberculosis of the pericardium.

Actinomyces bovis (here employed to signify the broad species designation[11]) is generally accepted as being a parasitic saprophyte of man,[12] cattle, and other animals, the oropharynx and the tracheobronchial tree being its natural habitat.[13] It is anaerobic and, unlike the aerobic species of Nocardia, has never been isolated in the free state in nature. The organism seems to behave as an opportunist, probably requiring preëxistent damage for its establishment as a pathogen. In this light it could be assumed that, for actinomycosis to acquire an apparently primary foothold in the pericardial cavity, some preëxistent form of effusion might be required to serve as a nidus for its proliferation. Once established, the actinomycotic process could then become the major concern. Invasion of the cardiac structures by hematogenous spread has been suggested, but the more common mechanism appears to be secondary extension from other thoracopulmonary foci.[1, 4] The propensity to produce burrowing fistulous tracts and to directly invade adjacent structures in its course is quite characteristic.

Why this indigenous organism of man may assume at times such virulent and destructive activity is still an unresolved question.[11] Actinomycosis has often been associated with devitalized tissue due to trauma, with the presence of foreign bodies,[14] and with other pathogenic microörganisms.[15] The role of sensitivity has not been clarified.[16] The organism attacks males more often than females and is uncommon in childhood.

The actinomyces are the exception among fungi in being vulnerable to the more common antibiotics, in particular to penicillin,[17] and the era of antibiotics has apparently not brought any relative increase in the incidence of this disease, as it has with other fungal diseases. In fact, the widespread usage of antibiotics may have prophylactic significance as to the potential development of actinomycosis in many instances.

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Report of Cases

Case 1. A 38-year-old male Korean prisoner of war was admitted to a military hospital in Korea on January 17, 1953. In the region of the right breast he had a firm, tender mass which had gradually increased in size during the preceding 2 months. There was no history of trauma to the site. He also complained of anorexia, fever, cough, and copious sputum, at times blood-tinged. These symptoms had started about 3 months prior to the appearance of the breast lesion. In the past history there was mention of typhoid fever 10 years earlier.

The mass in the breast was 5 by 5 by 2 cm., partially adherent to the skin, and somewhat irregular in contour; it was firm to touch and fluctuant at the center. A roentgenogram of the chest was interpreted as demonstrating fibro-ulcerative disease of the right upper lobe of the lung and involvement of the left upper lobe to a lesser degree. The sputum was negative for acid-fast bacilli and for ova of *Paragonimus westermani.*

The mass in the right mammary region was considered to be a tuberculous abscess and was treated by instillation of 250 mg. of streptomycin into its cavity every other day. With this treatment the mass receded but the patient's symptoms became worse. On March 4, 1953 he had a fever of 103.4°F. The area of cardiac dullness appeared enlarged on percussion, and the heart sounds were faint. There was edema of the lower extremities. The liver was palpable 3 fingerbreadths below the costal margin at the midclavicular line. The jugular veins were distended, and the radial pulse was weak. An X-ray film of the chest at this time demonstrated the cardiac diameter to be 225 mm., as compared to 115 mm. on the previous film. There was bilateral pleural effusion, and the fibrocaseous process in the lungs appeared to have progressed. A diagnosis of pericarditis with effusion was made, and numerous pericardial taps were made with removal of from 300 to 500 ml. of blood-tinged fluid on each occasion. The patient was then receiving 1 Gm. of para-aminosalicylic acid and 600,000 units of penicillin daily. Supportive therapy consisted of the use of ascorbic acid, multivitamins, oxygen as needed, and mercurial diuretics. At first the patient showed some improvement, but his symptoms were never completely relieved. He eventually became worse and died on April 5, 1953.

Blood counts for the latter part of hospitalization were as follows:

Date	Hemoglobin (Gm.)	Red Blood Cells (Millions)	Hematocrit (Per cent)	White Blood Cells	Neutrophils (Per cent)	Lymphocytes (Per cent)	Eosinophils (Per cent)	Stab (Per cent)	Monocytes (Per cent)
March 4	12.0	3.42	35	7,200					
March 17	17.0	5.46	48	7,800					
March 21	13.0			12,100	74	24	2	6	
March 25	10.0	2.93		9,750	71	27	1		1

The platelet count was 80,000; the bleeding time, 1 minute, 30 seconds; the Lee-White clotting time, 8 minutes, 5 seconds; the prothrombin time, 22 seconds (control 18 seconds); and the vitamin C blood level, 0 mg. per cent. Urinalysis showed a specific gravity of 1.022, no albumin or glucose, and negative microscopic examination. Stool examination revealed *Trichuris trichiura.* Four sputum specimens were negative for tubercle bacilli and ova. Examination of the pericardial fluid showed 20 mg. per cent glucose, and the smear was negative for acid-fast bacilli. Culture on blood agar showed no growth. An electrocardiogram on March 21, 1953 was abnormal, with low voltage. The rhythm was diagnosed as auricular flutter with completely irregular atrioventricular block. On March 27 the rhythm was normal, and again there was low voltage. The T-waves were iso-electric throughout. The tracing was considered compatible with pericarditis. On April 3 there were no significant changes.

The final clinical diagnoses were (1) tuberculous pericarditis and (2) tuberculosis, lung, bilateral. Anatomic diagnoses were (1) purulent pericarditis with myocardial abscesses and (2) compression atelectasis, left lower lobe; fibrocaseous tuberculosis, upper lobe, bilateral; infarct, hemorrhagic, right lower lobe; pleural effusion, bilateral.

The pericardial sac was enormously enlarged and almost completely filled the left chest cavity. There were old adhesions between the parietal pericardium and the chest wall. The pleural spaces held an estimated 400 and 600 ml. of clear, pale yellow fluid on the right and left, respectively. The parietal pericardium was thickened, and the pericardial sac contained an estimated 800 ml. of yellowish amorphous and gelatinous fluid. The heart weighed 400 Gm. The epicardium was thickened and had a shaggy surface. In the septal myocardium a group of yellowish nodules with soft centers stood out distinctly from the remainder of the firm, reddish brown muscle. The nodules varied from 2 to 4 mm. in diameter.

Although on microscopic examination the lesions in the lungs were interpreted as being tuberculous, the tuberculous nature of the pericarditis could not be confirmed. Further histologic study of the case at the central reviewing institute disclosed the presence of colonies of microörganisms morphologically consistent with Actinomyces in the cardiac sections.

Case 2. A 57-year-old Negro was admitted to a veterans' hospital in Tennessee on January 14, 1958, with the chief complaint of shortness of breath. He had been in an automobile accident about 5 or 6 years earlier, when he was knocked unconscious and sustained laceration of the scalp and fractured ribs on the right. Since the accident he had been complaining of headaches involving chiefly the right temporal area. He described these as being severe enough at times to confine him to bed for 1 or 2 days. There was no associated vomiting or nausea.

The patient first began to notice shortness of breath about 2 months before admission. Later he became troubled by a hacking cough, with production of a small amount of mucoid sputum. His shortness of breath had become progressively worse. About 2 weeks before admission he had felt an aching pain all over the anterior chest wall, extending to the epigastrium. He described this pain as lasting about 15 or 20 minutes and occurring only about once each day. There was no connection between the pain and exertion, nor was the shortness of breath increased in the presence of pain. Some days before admission he noticed swelling of the ankles, but this had receded. He had been at his job as a blacksmith until January 10. The following day he began vomiting, and this lasted for the next 3 days. There was no blood in the vomitus. The appetite had been good until this episode of vomiting; however, he had lost about 30 or 35 pounds during the preceding year. There was also a history of excessive alcoholic intake for several years.

The patient was well-developed and well-nourished and alert and coöperative, but dyspneic at rest, having a conspicuously fetid breath and appearing somewhat cyanotic. His temperature was 100°F by rectum; the pulse rate was 124 and the rhythm regular, with what was interpreted as either premature ventricular contractions or premature auricular contractions. The blood pressure was 80/68. The neck veins were distended. The teeth were in very poor condition. There were a few moist rales in the lungs at both bases. Some dullness at the extreme right lung base was interpreted as probably due to enlargement of the liver. A grade I to II systolic murmur was heard at the apex of the heart. The skin was cool, and the patient appeared dehydrated.

The red blood cells numbered 5,590,000, the hemoglobin was 15.2 Gm., and the hematocrit 49 per cent. The sedimentation rate was 35 mm. corrected. The white blood cells numbered 16,400, with 82 per cent neutrophils, 11 per cent lymphocytes, and 7 per cent monocytes. The peripheral blood smear showed marked polychromasia and a few nucleated red blood cells. A sickle cell preparation was negative. Urinalysis showed a specific gravity of 1.020, a trace of albumin, 3 to 5 hyaline casts, and 1 to 3 white blood cells and red blood cells per microfield. The blood urea nitrogen was 41 mg. per cent; the CO_2 combining power, 20.5 mEq./V; the serum chlorides, 96 mEq./L; the serum sodium, 30 mEq./L; and the serum potassium 4.5 mEq./L. The prothrombin time was 41 per cent, with the control being 13 seconds and the patient's 17 seconds. The serum bilirubin was 2.46 per cent.

A roentgenogram of the chest showed a markedly enlarged cardiac silhouette, the lung markings were somewhat prominent in the lower half of both lung fields, and there were several areas of ill-defined nodular densities that were most obvious at the right base. There was slight blunting of both costophrenic angles. A flat plate of the abdomen showed a diffuse haziness through which the right psoas muscle shadow was very faintly outlined. Calcification was noted in the region of the gallbladder. An electrocardiogram showed sinus tachycardia with occasional nodal premature beats and a pattern suggesting an anterolateral myocardial infarction of undetermined age.

The impression on admission was that the patient had arteriosclerotic heart disease with marked cardiac enlargement and decompensation. It was also thought that he had a myocardial infarction of undetermined age. With the intravenous administration of Neo-Synephrine the blood pressure went up slightly. The patient was placed in an oxygen tent and given Cedilanid, 1.2 mg., intravenously. As he was also obviously dehydrated, fluids were given by clysis. In view of the elevated white blood cell count it was suspected that some other process should be considered. The cardiac silhouette had been noted on the X-ray film to be somewhat rounded, and the possibility of a pericardial effusion was entertained. However, in view of the facts that the neck veins showed only minimal distention, the venous pressure was 210 mm. of water, the heart sounds were loud, and there was no paradoxical pulse, it was decided to defer a pericardial tap in the absence of impending cardiac tamponade. At this time there were a few fine rales at the left base of the lung. The blood pressure ranged from 90 to 100 systolic and 66 to 80 diastolic. On the evening of January 15 the patient became very dyspneic, with shallow gasping and a falling blood pressure. He failed to respond to intravenous stimulants and died that night.

The clinical diagnosis was arteriosclerotic heart disease with cardiac enlargement, remote anterior myocardial infarction, and myocardial insufficiency, class IV-E.

Anatomic diagnoses were (1) acute purulent pericarditis, (2) infarction, hemorrhagic, right lower lobe, and (3) generalized arteriosclerosis.

In the mediastinum beneath the arch of the aorta there was an abscess approximately 3 cm. in diameter filled with purulent material. The pericardial sac was tense and bulging. It contained an estimated 500 ml. of thick, foul-smelling, whitish yellow, purulent material. There were several easily broken adhesions between the visceral and parietal surfaces. The heart was coated by a shaggy, grayish yellow, fibrinous exudate. The pericardial sac was obliterated posteriorly. The heart and pericardium together weighed 850 Gm. In the myocardium of the left ventricle near the apex several small, purulent abscesses were seen in the muscle. Some extended to the epicardial surface. The coronary arteries showed moderate to severe atherosclerosis, but there was no occlusion, and no infarction of the myocardium was observed.

An area of consolidation in the right lower lobe of the lung was firm and deep red and extended in cone shape to the pleural surface.

Further histologic study at the central reviewing institute disclosed the presence of colonies of microorganisms morphologically consistent with Actinomyces in the heart sections.

The case illustrates the difficulties at times encountered in establishing a differential diagnosis between myocardial infarction and pericarditis.[18, 19]

Case 3. A 39-year-old white man who had been a mental patient at a veterans' institution in New Jersey since August 8, 1943 with the diagnosis of schizophrenic reaction, hebephrenic type, was transferred to the medical service on May 14, 1958 because of an acute pulmonary condition. There had been a diagnosis of acute lobar pneumonia of the right lower lobe in 1951.

The patient was well-developed and well-nourished but appeared acutely ill. The temperature was 100°F. The pulse rate equaled the ventricular rate at 128 per minute. The respiratory rate was 26 per minute, and the blood pressure was 128/80. The heart sounds were of normal intensity and quality. There was increase in the breath sounds at the left base and markedly diminished breath sounds in the right lower midlung field. Both bases were dull on percussion. Increased whispered voice was definitely detected over the left midlung field posteriorly. The abdomen was slightly distended. The liver border was 4 fingerbreadths below the costal margin. There was moderate ankle edema.

An X-ray film of the chest showed a marked effusion on the right side. The underlying structures were not visualized. The white blood cells numbered 19,700, with 91 per cent granulocytes. Fluid obtained by thoracentesis showed 1,300 white blood cells per cu. mm., with 70 per cent lymphocytes, and a specific gravity of 1.011. A culture reported after 48 hours was negative for acid-fast bacilli.

The patient was given oxygen, Achromycin, 500 mg. every 4 hours, and Cedilanid intravenously. The following morning he lapsed into semi-consciousness. The respirations were rapid, noisy, and bubbling. In spite of thoracentesis, the use of oxygen, and digitalization, the patient died about 24 hours after the onset of his acute illness.

The clinical diagnoses were (1) schizophrenic reaction, hebephrenic type, (2) pneumonia, lobar, right lower lobe, and (3) pleurisy, acute, right, organism unknown.

The anatomic diagnoses were (1) bronchopneumonia, diffuse, bilateral, (2) serofibrinous pleurisy, bilateral, and (3) adhesive pericarditis due to actinomycosis.

There were some adhesions between the pericardium and the medial edge of the left upper lobe of the lung. The pericardial sac was adherent to the heart and could be separated only by sharp dissection. Near the base, surrounding the major blood vessels and at the posterior aspect of the left ventricle, the pericardium appeared as a hard, almost cartilaginous, grayish white tissue with interspersed bright yellow streaks. It measured up to 2 cm. in thickness. In the anterior aspect it averaged between 0.2 cm. and 0.4 cm. in thickness and was not as densely adherent to the heart but was connected by numerous thick, fibrous, whitish gray to translucent bands. The myocardium showed no visible scars. On microscopic examination, formations morphologically consistent with colonies of Actinomyces were demonstrated in the thickened and organizing epicardial coating. The lung sections showed an extensive purulent bronchopneumonic process.

In this case the pericardial process appeared as an ancillary finding, and its relationship to the bronchopneumonic process is not clear.

DISCUSSION

Actinomycosis is a chronic disease which displays an unsteady balance between destructive and reparative processes, eventually tilted in one direction or the other. Loss of normal structures, suppuration, formation of granulation tissue, and scarring are to be found in varying degrees. Granulomatous reaction with giant-cell formation, an accepted landmark of a sensitivity-modified response, is not prominent in actinomycosis.

The cause of death in cases 1 and 2 was apparently cardiac tamponade due to suppurative pericarditis. The pyogenic process was also found in small foci within the cardiac muscle. On microscopic study (figure 1) the impression is gained that the myocardial invasion started from the periphery; however, the opposite view might also be entertained—that the myocardial focus preceded the pericarditis and was hematogenous in origin. The available information is insufficient to draw conclusions, but the first interpretation is favored here.

In case 3 the fibrosing process predominated, and this case may serve to suggest actinomycosis as a possibility among the various etiologic factors in the development of constrictive pericarditis. A report by Gose[20] better exemplifies such an occurrence.

The cause of death in case 3 appears to have been bronchopneumonia, presumably of bacterial origin. At least the histologic findings in the lung are consistent with such an interpretation, and an association of etiologic agents is not improbable. In case 1 the association was apparently that of tuberculosis and actinomycosis. Such a combination occurring in lung lesions has been described in the literature.[4] Unfortunately, in case 1 the culture studies were incomplete, and those carried out were inconclusive.

The diagnosis of actinomycosis in each of the 3 cases rests on histologic demonstration of the typical actinomycotic granules (figure 2). These are made up of intertwining, delicate, branched filaments, nonacid-fast and gram-positive (figure 3). The granules are readily distinguishable from the so-called "botryomycotic" colonies of bacteria,[22, 23] but other Actinomycetaceae are not as easily eliminated on morphologic grounds alone. Other species, however, are unlikely as agents of systemic disease, with the exception of *Nocardia asteroides*, but the latter, in its systemic manifestations, is not prone to form granules of this type.

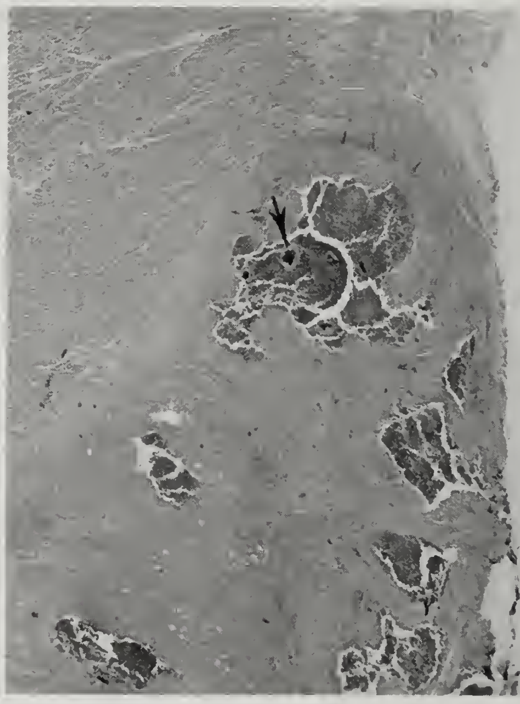

FIG. 1. Case 2. Epicardial surface of heart, showing abscesses or fistulous tracts in adjacent myocardium. Arrow indicates an actinomycotic colony or granule. (AFIP acc. no. 868952, neg. 59-547)

A definite diagnosis should be supported by culture studies. Awareness of the problem must be the concern of the clinician, and of the pathologist, too, should he be called on to clarify the diagnosis. The 3 cases serve to illustrate the clinical difficulties and also the necessity of the prosector's recognition of the condition. It is significant that in cases 1 and 2 the final pathologic diagnosis was not achieved until the necropsy material was studied at the central reviewing institute of pathology.

With the surgical technics available today for diagnosis of obscure forms of pericarditis,[24, 25] any material obtained should be studied with due consideration given to actinomycosis, including anaerobic culture on appropriate media.[4, 16] The treatment may then follow the general rules for actinomycosis,[14] applied to the local problem of pericarditis, viz., massive penicillin therapy and surgical débridement. The decision as to intervention upon myocardial foci rests perhaps in the domain of future surgical exploits.

SUMMARY

Three cases of primary or isolated actinomycotic pericarditis with necropsy have been reported. The condition is rare but should be considered in the differential diagnosis of pericarditis. It is surmised that, because of the low pathogenicity of the actinomycotic organism, the presence of a pericardial effusion may be a prerequisite for the establishment of the infection. The importance of securing appropriate anaerobic cultures of pericardial exudate for diagnosis is emphasized. The suggested basic principles of therapy are massive penicillin administration and surgical débridement.

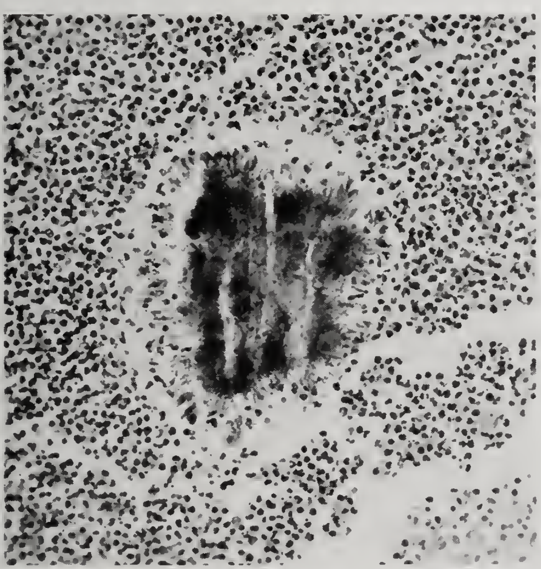

FIG. 2. Case 2. Actinomycotic granule surrounded by pus cells. Same granule indicated by arrow in figure 1. (AFIP acc. no. 868952, neg. 59-548)

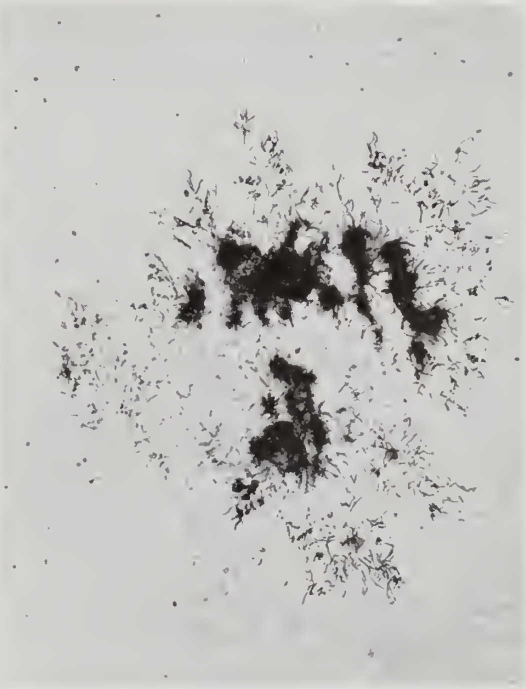

FIG. 3. Actinomycotic granule stained by the Brown and Brenn modification of Gram's stain.[21] Delicate branching filaments are well demonstrated by this stain. (AFIP acc. no. 868952, neg. 59-546)

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WILLIAM THORNTON (1759–1828)

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WILLIAM THORNTON was the son of a wealthy planter in the West Indies, born at a time when even the poorest planters owned many slaves. He became an orphan at 5, however, and was reared austerely by Quaker relatives in England. At the age of 17 he was apprenticed to a Dr. Fell, an apothecary, dentist, and phlebotomist. After 3 years of the varied practice of Dr. Fell, Thornton entered the University of Edinburgh and finally received a diploma of medicine from the University of Aberdeen. He then studied in Paris for 2 years. When he came to the United States in 1786 his medical training was unexcelled. He used his training sparingly, however, mostly to comfort sick friends or to prescribe simple treatment for George Washington's family. As Mrs. Thornton said, "Dr. T. never practiced physic."[1]

Education in Paris had a salutary effect on the staunch English Quaker. Shortly after coming to the United States he asked the prosperous governor of Delaware for his daughter. The governor had married a young heiress himself, but he thought his own 16-year-old daughter was too young for marriage.[2] Thorton left governor, daughter and dowry in Delaware and returned to Tortola (Turtle Dove), West Indies. He soon became engaged to a local heiress known only as Miss R.H., but she ran away with another man just before her scheduled marriage to Dr. Thornton. Miss R.H. left the doctor with a "mortifying fever," but he recovered rapidly. Within a year he was married to Anna Maria Brodeau, the 16-year-old daughter of a prominent Philadelphian.

In her unpublished booklet, "The Life of William Thornton," Mrs. Thornton described their "blessed" family life. She especially emphasized her husband's kindness to his mother-in-law (a woman whose "strength of character and independence" is lingeringly described). In the booklet Mrs. Thornton protests that Thornton was not "henpecked," despite occasional statements to the contrary. According to her, his only blemish was his interest in horse racing and his trust of anyone, regardless of station, who shared that interest. Perhaps Dr. Thornton testified to his own family loyalty in the greeting from "Mrs. Thornton and Her Mother," which he included in almost every letter as a postscript.

Possibly through the influence of his mother-in-law, Dr. Thornton was permitted to enter the design competition for a new library in Philadelphia. His sketches won. Because of this success, and now with the added influence of the painter Trumbull, Dr. Thornton was allowed to submit a design for the national capitol. The prize was $500.00 and a plot of land in the District of Columbia. He won again, and though adaptations were made, the basic plan was Thornton's. Dr. Thornton designed many homes in the district, including such buildings as the Octagon House (now the home of the American Institute of Architects), a home for General Washington, and one for General Washington's nephew. Thornton assisted Jefferson with the plans for the University of Virginia. The amateur architect painted admirable miniature portraits, and naturalists came to see his paintings of West Indian flora. Most of his paintings, verse, and unfinished fiction are obscure now;

the formal gardens have disappeared, and some of the homes he designed have been torn down. The Capitol is still recognizably Thornton's, despite improvements now in progress on the East Front.

Impressed by Thornton's architectural plans, President Washington appointed Thornton the first commissioner, or mayor, of the District of Columbia. While commissioner, Thornton spent many happy hours tramping over the District with the General, and numerous letters record their warm friendship. At one time Thornton wanted to become Washington's private secretary, hoping to record Washington's every word, but the job had been promised to another. From the correspondence it appears that most of the discussion was led by Thornton, not Washington, and it usually revolved around Thornton's projects. These varied from gold mines in North Carolina, a severe business failure, to plans for the creation of art and philosophical societies in the District. Thornton urged Washington to expedite the foundation of a national university, one which would include mechanical and agricultural institutions. The doctor may even have confided in Washington some of his dreams for the liberation of South America.*

As a youth Thornton had been stirred by the American Revolution, and he encouraged innumerable visits of Revolutionary patriots to his Washington home. Nevertheless, the new citizen was sure that the young republic was in danger of internal decay, and some of his sentiments have latterday echoes. "At present we look not for good and enlightened Men to fill our offices, but for men of money, of influence in Elections, of intrigue, to help forward our contemptible views of self-interest—I call upon you to publish what I write if you have any spirit of '76. It was then that men dared to think, and to write. It was then that those bold and home Truths were told in the Pages of Common Sense. But the Times have changed, and I call upon you my Countrymen to resume your native energies."†

On the other hand, Thornton's comments on the future of America could be visionary. About 1810 he pointed out that in a hundred years the population of the United States would equal 100 million. "The East Indies will become independent of Great Britain—New Holland will become independent—The Cape of Good Hope will become independent, but all these speaking the English Language will give such advantage to our Commerce as to render us in a few years the most potent Nation in the World."[2]

Although he had been a slave-owner, Thornton worked hard for emancipation. Supported by James Madison, Samuel Adams and others, Thornton organized 2,000 freedmen in Boston (Massachusetts) who were willing to join a new colony in Sierra Leone. His plan, and its expression, were characteristically expansive. "A form of republican Government would be prepared for them—they ought for a while to be protected by a due force. Public Schools and places of worship should be established. Whatever would attend to their advancement in this world, and preparation for the next, should be solicitously fostered—and if with all our Care such a people should be produced as might reasonably be expected to arise from such preparatory Steps, they would bless the humble Instruments of this great work;—for when the surrounding Nations of Africa now wrapt in miserable Ignorance should incline to join their emancipated Breathren they would find them truly emancipated—not from the chains of Slavery alone, but from the thralldom of the Mind . . . Thus would Slavery, the darkest stain on Christian Professors, be finally rendered subservient to the work of heaven and the poor Africans be in a manner repaid for the long sufferings of their unhappy children. The wilderness would flourish in Arts, Agriculture and Science, their Ports would be open to the whole world, the Native African would be taught the principles of Christianity and be happy; thus millions unnumbered in singing hallelujahs to our God, would bless the Children of the West."

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* Years later the doctor often corresponded with South American revolutionaries, and at one time he composed a constitution for a combined republic of North and South America. He placed the capital of his hemispheric "Columbia" in Panama, near the place where he said a canal should be built.

† Thornton's letters are available with the Thornton Papers, but the 3 long quotations here are all recorded in Gaillard Hunt's paper.[2]

The Sierra Leone venture failed, but Thornton continued to suggest various locations for a free state. At one time he advocated the purchase of Puerto Rico both for this purpose and to prevent trouble with England or Spain over that "rich and fertile" island. From experience in the West Indies, Thornton was against allowing freedmen and slaves to live side by side. He finally proposed governmental confiscation of all slaves. The Negroes were to be employed on vast public works for 4 years, during which time the owners would be recompensed by the wages. The slaves would become free at the end of the 4 years, having had some experience in personal responsibility and having accumulated some savings.

Next to his friendship with General Washington, Thornton was proudest of his inventions. He was the main patron of John Fitch, builder of America's first steamboat. Thornton designed the paddle wheel himself, and one of Fitch's early successes was named *The Thornton.* Dr. Thornton invented a steam-driven machine-gun which rapidly fired 20 bullets through an inch-thick plank, but he considered this primarily a curiosity. He also developed improved boilers, stills, and methods of cooling fluids, and had at least 7 of the earliest patents issued to himself.

Thornton was Superintendent of the United States Patent Office in 1812 when the British burned the public buildings in Washington. Almost all government officials fled, but the British Army was met at the door of the patent office by Dr. Thornton. He told them that he guarded America's Museum of Fine Arts and that culture in the Western Hemisphere would suffer immeasurable loss if the building were destroyed. He was at least as expedient as he was honest, but he saved the building. Later it served as the temporary home of the Congress. While still working to prevent looting and further destruction of Washington, Dr. Thornton employed physicians to treat the wounded of both sides.

Only a few of Thornton's letters and essays have been published. One of these was "Cadmus; a Treatise on the Elements of Written Language. Appended an Essay on the mode of teaching the Surd or deaf, and consequently Dumb, to speak." According to Alexander Graham Bell, this was the first essay on teaching deaf people to speak to be written and published in America.[3] Some of the unpublished, and often unfinished, manuscripts include novels, books on sleep and on religion, and articles on flying, gravity, animal breeding and intelligence, and on being buried alive.

Despite his marked versatility, Thornton has never been as famous as many of his contemporaries. His wife implied that this was partly because he was a naturalized citizen living in a nation dominated by revolutionary heroes. He cultivated the friendship of prominent officials, yet was not as popular as he wished to be. He was contentious,* and the vigor with which he defended his convictions may have repelled lesser but more influential men.

Thornton missed additional recognition because of his failure to practice medicine. Many of the giants he emulated were versatile, but first they were experts in one field. Dr. Thornton was architect, painter, inventor, farmer and politician, but was considered an amateur in all these. He consistently ignored his own specialty.

There were several reasons why Thornton never practiced. Mrs. Thornton said he did not

(*Continued on page 66*)

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* Thornton argued for years, privately and in public, with B. H. Latrobe and others who questioned both the wisdom and the originality of Thornton's architectural plans. Later Thornton corresponded voluminously regarding the priority of John Fitch over Robert Fulton. Even the heroism of 1812 was tarnished by Thornton's repeated public condemnations of the officials (particularly the mayor) who had not performed as nobly as he himself had done.

President's Page

THE GOLDEN SIXTIES

According to many economists, the decade which begins this month is destined to be one of unprecedented growth and prosperity for this nation. Time alone will tell whether these optimistic forecasts will in fact come to pass. Yet there is one factor alone, the anticipated growth of population, which is bound to exert a strong influence in the creation of prosperity. The need for new construction in the years immediately ahead is self-evident: new homes for the rapidly increasing number of families, new schools, new factories, new roads. Increased production of food and clothing will be necessary. We will need more steel, more bricks and cement; the production of oil and gas must increase to heat the factory and the home and to provide the fuel which will keep a growing America on the move.

As I assume the duties of my office, I try to visualize the role which the medical profession is going to play in this decade. The strides already made in the science of medicine will no doubt be more than matched in the years ahead. It will be the responsibility of organized medicine to continue to exert inspired leadership in the development of medical care policies which will be liberal, progressive, and expanding. We must meet the demand for increased medical care by means of voluntary insurance that offers the maximum protection at a cost which is within the reach of all. Progress toward the solution of this problem will depend upon the diligence and foresight with which we devote ourselves to the task.

Statisticians have pointed out that the recent trend of an increasing percentage of elderly citizens in our population will accelerate appreciably in the future. This lengthened span of life is in great measure the result of improved medical care. The new specialty of geriatrics assumes a greater importance every year. At the same time, a spectacular increase in births is anticipated. The head of the family not only has to pay for the medical care costs of his dependents, but he is frequently called upon to help meet the cost of major illnesses of his parents. Through the growing use of insurance protection, as manifested by the steady growth of Blue Cross and Blue Shield, he can budget most of his family's expenses. However, insurance for the aged has not afforded the same protection. This is a serious and challenging socioeconomic problem with which the medical profession is intimately concerned.

The usual obligatory retirement at age 65 may have to be reappraised, both by Govenment and private enterprise. Too many capable and experienced workers are being denied the opportunity to continue at their jobs. Retirement should be determined not by an arbitrary age limit but by the individual's ability to continue to do a good job. The present system results in an appalling waste of human resources. Not many individuals at age 65 are able to make a transition to other gainful occupations. In many cases this is absolutely necessary to supplement the income derived from Social Security or other pension funds. What better example of the continued usefulness of the senior citizen can we find than that of our medical men who continue to practice for 10, 15, or 20 years past the age of 65.

Two committees of the Medical Society will be particularly concerned with the problem which I have alluded to, the Committee on Aging and the Committee on Medical Care. That they will work assiduously and effectively I have no doubt. To these and to all our other committees the entire membership owes its most enthusiastic support.

Victor R. Alfaro.

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Editorials

VICTOR R. ALFARO, M.D.

When the Medical Society of the District of Columbia elected Dr. Victor R. Alfaro as its 93rd President, it recognized both a distinguished otolaryngologist and the close ties that we have with our Central American neighbors. His father, the Honorable Ricardo J. Alfaro, now a judge of the International Court of Justice at The Hague, was the Minister of Panama to the United States for many years. He later served his country as Secretary of State and President. Undoubtedly the diplomatic qualities which established his father in these offices will enable his son to carry on both efficiently and smoothly his role as president of the Medical Society of the District of Columbia.

Dr. Alfaro has already served the Society in many ways during his years of membership, which began in 1930. At one time he was Chairman of the House Committee; he was General Chairman of the Annual Scientific Assembly in

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia

VICTOR R. ALFARO, M.D.

President, The Medical Society of the District of Columbia, 1960

1936. Upon the resignation of one of the Society's delegates to the American Medical Association in 1956, Dr. Alfaro, his alternate, succeeded to that office and continued until he resigned a year ago upon accepting the presidency of the Society. Last year he was Chairman of the Section on Laryngology, Otology and Rhinology of the AMA and presided at the meeting of the Section in Atlantic City in June 1959. He is now a member of its Council.

Dr. Alfaro was born in Panama City, Panama, March 14, 1907, and received his early education at the National Institute of Panama. He came to Georgetown University to pursue his medical education, receiving his Bachelor of Science degree in medicine in 1927 and his medical degree in 1929. Electing the specialty of otolaryngology for his medical career, he attended the University of Pennsylvania for postgraduate study in 1930–31, the Chevalier Jackson Clinic at Temple University in 1943, and Northwestern University in 1951.

Both a practitioner and teacher, Dr. Alfaro maintains his own offices at 917 20th Street, N.W., and is on the staff of Georgetown University School of Medicine as Professor of Otolaryngology and is senior attending in otolaryngology at the Washington Hospital Center. He is certified by the American Board of Otorhinolaryngology.

During World War II he served in the Army of the United States for four years, during which time he was Chief of ENT Service at England General Hospital in Atlantic City. He was commissioned Captain in 1942 and when separated from the Army in 1946 held the rank of Lieutenant Colonel.

Dr. Alfaro is Vice President of the Pan American Society of Otolaryngology. He is on the Council of both the American Triological Society and the American Society of Ophthalmological and Otolaryngological Allergy.

His membership in national scientific organizations also includes the Southern Medical Association, the American Academy of Otolaryngology, the American Otological Society, and the American Laryngological Association. He is a member and past president of the Louis Mackall Medical Society and the Medical Arts Society, and a member of Alpha Omega Alpha fraternity. He has contributed to the literature in his field.

He was Chairman of the local Committee on Arrangements for the Sixth International Congress of Otolaryngology, which was held in Washington in May 1957. Presently he is serving on the board of consultants to the Washington Hearing Society.

When Dr. Alfaro relaxes from his professional and community activities, he finds pleasure in charcoal drawing and oil painting. He also enjoys golf at the Chevy Chase Club.

The Alfaros have two children. Their daughter, Nancy, now Mrs. Edward L. Emes, of Georgetown, was presented to Washington society in 1955, exactly 29 years to the day after her mother, then Nancy Hamilton, made her debut. Their son, Ricardo J. II, lives with the family at 4210 42nd Street, N.W.

CHALLENGES*

I have spoken of the public scrutiny, often critical, under which physicians toil, and the concern of the United States citizen that he should have the best possible medical care. But, you may ask, what can an incoming freshman medical student do about it? No one expects you to be like Isaiah, a prophet crying in the wilderness, but perhaps there are attitudes to be developed that may help.

The finest medical students, the men and women who are truly outstanding in each class, are those who have shaped and developed their minds in the broader sense. Do not restrict the acquisition of new knowledge solely to medicine in the years ahead. Enjoy good music, read good books, listen to good lecturers, and have a good outing with your friends. But do not seek these outlets solely for relaxation. The mental activities that you undertake in the next 4 years will set the mold for a lifetime. Learning good music, learning history, science or art from a good book or a good lecture—these are far more rewarding and relaxing than the passive role. We are too often afraid to read a great book. Strike the sparks from the anvil of your mind.

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* Excerpts from "The Changing World of Medical Education," an address by Dr. John Z. Bowers, Dean and Professor of Medicine, University of Wisconsin Medical School, delivered at the Opening Assembly of the School of Medicine of George Washington University, September 14, 1959.

Physicians are frequently said to only enjoy the company of other physicians; doctors are clannish. Well, we say that is because other people do not understand what we are talking about. What a mis-statement! We might more appropriately say, "Doctors are clannish because they are often unable to talk about subjects that other people are interested in." Our predecessors in medicine were good conversationalists—often conversation was all that they had to offer. Today antibiotics and diuretics have too often replaced the spoken word, and we have lost as much as our patients. Find time to talk with your patients and friends and have something to talk about—besides socialized medicine!

There are desires for learning that the faculty cannot give you. You must have desire to achieve. The Lebanese poet, Kahlil Gilbran, said, "A teacher does not bid you enter the house of his wisdom but rather leads you to the threshold of your own mind." A teacher can fan the sparks of a desire for learning, but you must tend the fire. Hear the "everlasting whisper" repeating in Kipling's words, that desire for:

> "Something hidden. Go and find it. Go
> and look behind the Ranges—
> Something lost behind the Ranges.
> Lost and waiting for you. Go!"[1]

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[1] "The Explorer" by Kipling, after Penfield.

MEDICAL SERVICE AND EXCESSIVE LABORATORY BILLS

For some years now, Medical Service has had a chronic recurrent problem of excessive laboratory bills. These bills frequently range from $500 to $1,500, and, in a few cases, even higher. Fortunately, these cases are relatively infrequent but occur often enough to be a drain on our Medical Service program.

It is apparent from reviewing these cases that most come from the teaching centers. Part of the reason for this is the academic stimulation present in these institutions. However, in many cases reduplication of the same work in different hospital laboratories or repetition of work daily or several times per day, apparently due to failure to observe patients or else to place a stop order on the tests, has occurred.

Because of the size of these fees, Medical Service has asked the Section on Pathology and Laboratory Medicine for some help in this matter.

The Section is in agreement that these bills are too large and place an added and unnecessary burden on "Our Plan." However, we have no control over the amount of laboratory work ordered and are not in a position to say whether it is justified or not. Unnecessary laboratory work puts an additional burden on our technologists, who, in many instances, are already overburdened. Technologists who are overworked do not function with their usual proficiency.

We are certain that all the physicians in the Metropolitan Washington Area are vitally interested in the success of the Medical Service program. Some physicians either unwittingly or possibly through lack of understanding have not attempted to coöperate in keeping the costs of Medical Service down. If we do not, the Government will, by setting up some type of regulatory mechanism.

With the above thoughts in mind, the pathologists would like to remind their fellow physicians that in ordering laboratory work they should attempt to do one of two things: (1) confirm or disprove a diagnosis made after a history and physical examination have been done, and (2) follow a patient from the standpoint of therapeutic control. In addition to these two reasons one might add academic interest as long as it does not become abused.

We do not want to do laboratory work that is unnecessary. Not only does it increase the cost of medical care, but it tends to demoralize the personnel of the Pathology Department. Therefore, when Medical Service considers the quantity of laboratory work performed to be excessive, the approach should not be to penalize the unit which followed orders and performed the work. The attention of Medical Service should properly be directed at such individuals who ordered the excessive work performed.

C. Barrie Cook, M.D.
Chairman, Section on Pathology and Laboratory Medicine

ON MEDICAL STATUARY

Among the many statues which adorn our fair city, statues of generals, statesmen, lawyers, orators, and others, at least six are those of physicians. Some of these are familiar to us, their colleagues; others are not. Our readers may therefore be interested in knowing something about brother practitioners who have been memorialized in bronze. Three of the statues are in the open, three in Statuary Hall of the Capitol. Rather than following this distribution, however, let us consider the subjects chronologically.

Benjamin Rush (1745–1813) was the foremost American physician of his day. Born in Philadelphia, he was educated under Cullen at the University of Edinburgh, graduating in 1768. He then entered practice in Philadelphia. He was Surgeon General in the Continental Army and was a signer of the Declaration of Independence. He was Professor of the Institutes and Practice of Medicine at the University of Pennsylvania and wrote voluminously, among his works being "Medical Inquiries and Observations upon the Diseases of the Mind" (1812), the first systematic treatise on the subject by an American. His statue, dedicated June 11, 1904 in the presence of President Theodore Roosevelt, Dr. William Osler, and other distinguished persons, stands on the grounds of the old Naval Hospital at Twenty-third and D Streets, N.W.

Christian Samuel Hahnemann (1755–1843) was born in Meissen, Saxony and died in Paris, France. He was graduated in medicine at Erlangen in 1779 and was a successful practitioner. He was a linguist as well and translated many medical works. Rebelling at the polypharmacy and huge doses prevalent in his day, he developed the "law of similars," advocating, too, the minimal dose and the single remedy. These became the basis of the homeopathic school of medicine, the principles of which he set forth in the "Organon of the Rational Art of Healing." His monument, the most elaborate of all the medical statuary of Washington, stands in a conspicuous place in Scott Circle. The seated statue of Hahnemann is placed in the centre of a large granite exedra, with four bronze entablatures. It was unveiled, June 21, 1900 in the presence of President McKinley. As long ago as that, the cost was approximately $48,000.

Ephraim McDowell (1771–1830) was born in Rockbridge County, Virginia. He attended the University of Edinburgh for the session of 1793–4 (his only M.D. was honorary, conferred by the University of Maryland in 1832), and then went into practice in Danville, Kentucky. In 1809 he performed the first ovariotomy in history. The patient survived and lived to a ripe old age. A granite obelisk in his honor was unveiled in Danville in 1879, with Samuel D. Gross as orator. McDowell's statue stands in Statuary Hall. A commemorative stamp bearing his likeness was issued in December, 1959.

John McLoughlin (1784–1857) was born in Quebec Province and learned medicine under his grandfather. Early in life he became associated with the Hudson Bay Company in the Fort William District and later in the Orgeon country as Supervisor. He was apparently to all intents the Governor and protected the Americans against the Indians. He practiced medicine and surgery in addition to his administrative duties, and founded the first hospital of the great Northwest. He became an American citizen in 1849 and is often referred to as the Father of Oregon. His statue stands in Statuary Hall.

Samuel D. Gross (1805–1884) was born near Easton, Pennsylvania and graduated from Jefferson Medical College in 1828. He taught anatomy, pathology, and surgery and gave the first lectures on pathologic anatomy in the United States in 1835. From 1856 to 1882 he was Professor of Surgery at his alma mater. He wrote treatises on surgery and pathologic anatomy and many articles and translations. So wide was his fame that he received honorary degrees from Oxford, Cambridge and Edinburgh. His statue, now to be seen to the north of the National Library of Medicine, Seventh Street and Independence Avenue, S.W., was unveiled, May 5, 1897, W. W. Keen being the orator of the day. Gross' name is also to be found in the mosaics of the Library of Congress.

Crawford W. Long (1815–1878) was born in Madison County, Georgia. He attended Franklin College (now the University of Georgia), where he was the roommate of Alexander Stephens, later Vice President of the Confederacy. He graduated in medicine from the University of Pennsylvania in 1839 and returned to practice in his native state. In March, 1842 he used ether as an anesthetic when operating on a patient to excise a tumor of the neck. This was undoubtedly the first such use, but Dr. Long did not publicize his feat until 1849, when he wrote an account in the *Southern Medical and Surgical Journal.* Thus he did not receive the sort of attention that Morton (a dentist) did four years later at the Massachusetts General Hospital. Dr. Long's statue is in Statuary Hall. His face appeared on a United States commemorative postage stamp in 1940.

STATUE OF DR. BENJAMIN RUSH

(on grounds of old Naval Hospital)

This is a distinguished group indeed of physicians who did much for mankind. It would be pleasant to record that our own fellow member, Dr. William Thornton (1761–1828), the architect of the Capitol, had been similarly honored. However, his monument, in the words of Horace, is *aere perennius,* more enduring than bronze. Of him we can say, as in Sir Christopher Wren's epitaph, "*Si monumentum exegis, circumspice.*"

W. O.

In and Out of Focus

BY THE OBSERVER

A Blue Ribbon Assembly

Basically the character of the Annual Scientific Assembly has varied little since its inception. However, as regular attendants have undoubtedly observed, improvements are made from year to year, features proving unsuccessful being dropped, new ones added. At best, most Assemblies have their weak spots. This year every feature fulfilled the most optimistic hopes of the Committee on Arrangements. Plans do not often work out that way.

In the final analysis, the Assembly is judged by the attendance of physicians. The recent meeting was outstanding in this respect, more physicians registering than in several years. A breakdown of the attendance follows:

Members and guest physicians	1,534
Interns	68
Nurses	137
Medical students	299
Exhibitors	315
Miscellaneous	307
	2,660

As has been repeatedly stated, the heart of any successful medical meeting is its scientific program. This year it was outstanding not only for its content but for the manner of its presentation. Formal papers were not included, nearly all the presentations being of the informal panel type. These proved highly successful. This is understandable because physicians like the give-and-take among participants. In addition, panel discussions are an effective teaching method.

Credit for the choice of subject matter and panel participants is due Dr. Philip H. Philbin, Chairman of the Program Committee, and his associates. Dr. Philbin, who had the greatest responsibility with respect to the program, is to be highly commended for his perseverance and demonstration of program-planning ability.

The scientific exhibits this year were of unusually high standard, as those who visited them will testify. Dr. Raymond A. Osbourn, Chairman of the Committee on Scientific Exhibit, and his associates are to be congratulated on their selection and choice of displays.

The following scientific exhibits were presented awards:

First prize: "Basic Fundamentals of Asthma," Marvin Fuchs, M.D., and Henry Ogden, M.D.; second prize: "The Clinician and Vaginal Cytology," Lois Irene Platt, M.D., Jed Williams Pearson, Jr., M.D., and William T. Lady, M.D., the George Washington University School of Medicine; third prize (shared by 2 sponsors): "Applications of Extra-corporeal Pump," John F. Gillespie, M.D., and Charles A. Hufnagel, M.D., Georgetown University School of Medicine; and "Complications of Gall Stones," Henry H. Balch, M.D., John K. Donahue, M.D., and John Rawlings, M.D. Certificates of Merit: "The Crystalline Lens," Theodor Wanko, M.D., National Institute of Neurological Diseases and Blindness, Bethesda, Maryland; and "Pulmonary Hypertensive Cardiovascular Disease," Major Robert J. Hall, M.C., U.S.A., Thomas W. Mattingly, M.D., and Colonel Loren F. Parmley, M.C., U.S.A.

Success of a meeting such as the Assembly depends to a large extent on the over-all direction. The General Chairman this year was Dr. Marcel J. Foret, who has had considerable experience with medical conventions. He served with unusual distinction and deserves the sincerest thanks of the Society's membership.

In addition to the above mentioned chairmen, there were the following: Dr. William R. Strong, Motion Pictures; Dr. Wesley M. Oler, Attendance Committee; Dr. Victor R. Alfaro, Social

Affairs; and Dr. Charles P. Ryland, Finance Committee. To them and to their associates should go a vote of thanks from the Society for a task well done.

There is always more or less concern about attendance at daily luncheons held in connection with the ASSEMBLY. The opening day's luncheon is usually well attended, perhaps because it is "free" to Active members. This year the attendance was larger than usual, there being 418 present. Despite the formidable luncheon agenda, the proceedings ran off very smoothly, largely due to the skill of Dr. W. LeRoy Dunn, President of the Society. Incidentally, Dr. Dunn has pleasantly surprised the membership by his efficiency and talent as a presiding officer. Mr. Hugh G. Head, of Atlanta, Georgia, one of the country's leading attorneys, was an excellent choice of speaker. His subject, "The Doctor Goes to Court," received the close attention of those present.

NICHOLS AWARD TO LIONS CLUBS

MR. LEWIS HOPFENMAIER II (left), President of Lions of District 22-C, accepts the Nichols Award for Laymen from PRESIDENT DUNN of the Medical Society at the Society's Luncheon, November 23.

Lt. Comdr. John H. Ebersole, M.C., U.S.N., spoke on "Sixty Days Under the Atlantic" at the Georgetown University Medical Alumni Association Luncheon, and the Director of the Voice of America, Mr. Henry Loomis, spoke on "The Radio Contest in Africa" at the George Washington University Medical Society Luncheon, held the last day of the ASSEMBLY. Both were deservedly enthusiastically received.

DR. RAMSEY HONORED BY MEDICAL SOCIETY

DR. HERBERT P. RAMSEY (left) accepts from PRESIDENT DUNN the Certificate for Meritorious Service which he received at the Annual Luncheon, November 23, during the Medical Society's ANNUAL SCIENTIFIC ASSEMBLY. The Certificate was presented to Dr. Ramsey "in recognition of his dedicated service to the medical profession and the people of the District of Columbia. His association with The Medical Society of the District of Columbia for 37 years has been characterized by unswerving loyalty and unselfish devotion. His contributions to the betterment of the public health in the Nation's Capital have been widely recognized. Above all, he has been the good physician, adhering to the highest ideals of his profession. In so doing, he has won the admiration and respect of all who know him. To him, the Society and the community owe a deep debt of gratitude."

Honored this year by the Society at the opening-day luncheon was one of its most distinguished members, Dr. Herbert P. Ramsey, Past President of the Society, who was presented with the Certificate for Meritorious Service. The Lions Clubs of District 22-C were presented the John Benjamin Nichols Award for the establishment and conduct of their Eye Bank and Research Foundation, Inc. Mr. Lewis Hopfenmaier II, President of the Clubs, received the Award for his organization.

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POISON CONTROL
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THE 28TH ASA AS RECORDED BY THE PHOTOGRAPHER
(See opposite page)

Although social events are merely the dessert of a meeting such as the Assembly, nevertheless they afford an opportunity for relaxation and enjoyment. More often than not they fall short of expectations, both as to attendance and enjoyment. This year, however, they were by all odds the most delightful in years. The Dinner-Dance, for example, was a happy occasion. Music furnished by Sidney's Orchestra and the performers appearing with them, presented through the courtesy of Burton, Parsons and Company, were excellent. The Seventh Annual Dinner for Doctors' Office Staffs was attended by 417, who enjoyed the "acts" made possible by the insurance firm of Hufty, Eubank & Russell, Inc. Peoples Drug Stores was again the host for the cocktail party preceding the Dinner-Dance. Other contributors to the success of the social aspects of the meeting were Maxwell and Tennyson, Inc., and the Walker Laboratories.

There will be no Assembly next year, it having been cancelled for the reason that the Clinical Session of the American Medical Association will be held in Washington on November 29 to December 2, 1960. The Society will be fully occupied preparing for and coöperating in the conduct of this meeting.

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What Does Labor Want?

The medical profession has been only too conscious of the demands of labor unions where methods of providing medical care are concerned. To a degree some of these have been met, but the principal objective, as repeatedly stated by some of their most influ-

PICTURES ON PAGE 46

(1) Lt. Comdr. John H. Ebersole addressing the Georgetown University Medical Alumni Association Luncheon, November 24, on "Sixty Days Under the Atlantic."

(2) Dr. James W. Watts, immediate Past President of the Medical Society, accepts a Certificate of Appreciation from President W. Le Roy Dunn at the Medical Society's Annual Meeting, November 22.

(3) Dr. Donald Stubbs, President-elect, who will take office in 1961, and Dr. Dunn, retiring President of the Medical Society, photographed at the Annual Business Meeting of the Society, November 22.

(4) Senator R. Vance Hartke (left), of Indiana, discusses the extent of poisoning emergencies with Dr. W. F. von Oettingen, toxicologist consultant for Suburban Hospital, in front of the scientific exhibit sponsored by Suburban's Poison Control Center.

(5) Among those principally concerned with the Assembly were: Dr. Marcel J. Foret (right), General Chairman of the Committee on Arrangements, and (left to right) Theodore Wiprud, Secretary and Executive Director of the Medical Society; Dr. Philip H. Philbin, Chairman of the Program Committee; and Dr. Dunn, President of the Medical Society.

(6) Conferring on convention plans prior to the opening of the Assembly were Dr. Raymond A. Osbourn (left), Chairman of the Committee on Scientific Exhibit, and Dr. Dunn, President of the Society.

(7) The Technical Exhibit was well attended by interested physicians.

(8) Moderating a panel discussion on "Hiatal Hernias," November 23, was Dr. Ernest A. Gould (right), of the Washington Hospital Center. Panelists (left to right) were: Dr. Michael E. DeBakey, of Baylor University; Dr. Brian B. Blades, of George Washington University; Colonel B. H. Sullivan, Jr., from Walter Reed Army Hospital; and Dr. Maurice Mensh, of George Washington University.

(9) Attorney Hugh G. Head, Jr., of Atlanta, Georgia, who addressed the Medical Society Luncheon, November 23, on "The Doctor Goes to Court."

(10) Dr. Osbourn (left), Chairman of the Scientific Exhibit, and Dr. Foret, General Chairman, are shown before the prize-winning exhibit, "Basic Fundamentals in the Management of Asthma," which was sponsored by Drs. Marvin Fuchs and Henry Ogden.

(11) Dr. Hugh H. Hussey, Dean of Georgetown University School of Medicine, presiding at the Georgetown Luncheon, November 24.

(12) Dr. Frederick Y. Donn (left), President of the George Washington University Medical Society, welcomes Mr. Henry Loomis, Director of the Voice of America, who addressed luncheon guests, November 25, on the subject, "The Radio Contest in Africa."

(13) Lined up for picture-taking are Lawrence A. Zupan, Exhibit Manager; Mr. Wiprud; Mary M. McCambridge, Supervisor of the Medical Bureau, who took charge of calls for physicians at the Assembly; Mrs. Patricia McClellan, who assisted at the Medical Bureau desk, and A. Louise Eckburg, who was in charge of the Registration Desk.

(14) The Registration Desk on the Opening Day of the Assembly at the Hotel Statler-Hilton.

ential leaders, is still to be realized. As every physician knows, these spokesmen have long advocated a Government-financed compulsory health insurance program, not only for members of their unions but for the general population. Realization of this goal has been, and will continue to be, opposed by the medical profession.

Although he is no advocate of this objective, Dr. William A. Sawyer, former Chairman and now a member of the AMA's Committee on Medical Care for Industrial Workers, and Medical Consultant to the International Association of Machinists, is sympathetic to labor's health needs. In an article appearing in the *Journal of Occupational Medicine*, entitled, "Labor's Health Goals," he sets forth his views and those of labor leaders who support them.

"Labor's health goal," he writes, "is quite simple, though it is not simply achieved. Labor wants comprehensive medical care on a prepaid basis. For the most part, it has had to settle on compromises and variations of this goal. But any appraisal of most of the limited programs resulting from these compromises seems only to point up the importance and validity of continuing to seek the total goal: comprehensive medical care on a prepaid basis."

Dr. Sawyer goes on to explain what he means by comprehensive medical care. In his opinion it must include (1) prevention, (2) early diagnosis and treatment, and (3) rehabilitation. "Labor," he says, "is learning the value of seeking this three-stage concept of comprehensive care."

"Unfortunately," he observes, "97 per cent of union nonoccupational medical care coverage is provided by commercial insurance, Blue Cross, and Blue Shield programs, which are concerned only with the second stage of medical care, diagnosis and treatment, and which have little or nothing to do with the first stage, preventive medicine, nor the third stage, rehabilitation."

Mr. Al Hayes, President of the International Association of Machinists, is quoted by Dr. Sawyer as stating: "What labor wants first in a health insurance plan is that it be comprehensive, running the gamut from periodic physical check-ups to care for long-term or catastrophic illness. [It wants] a plan which creates the incentive to keep well and which encourages health education, periodical check-ups, early diagnosis, and treatment."

Mr. George Meany, President of the AFL-CIO, is reported to have said:

> "A medical care program that begins to operate only when the patient is flat on his back in the hospital is a program of poor quality, yet that is the only kind that medical societies and hospital associations have, of their own volition, offered to the public."
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> "The commercial insurance companies and the Blue Cross and Blue Shield programs," Dr. Sawyer admits, "have made phenomenal and important progress during the past decade in providing the American public with the financial arrangements for handling certain of its medical needs. But, while 97 per cent of the medical care coverage is provided in these programs, the benefits actually pay for only one-fourth of the actual medical costs. The economic problem which labor is facing, then, and which is shared by most of our American families, whether connected with a union program or not, is how to meet the other three-fourths of the medical costs on a predictable, prepaid basis. Individual medical costs can never be predicted; group medical costs can be predicted—and the larger the group, the more accurate the predictions can be. Enough experience has been had to warrant this statement.
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> "This is a problem for everyone to tackle. It needs a sharing of opinions, experiences, and facts, by everyone concerned: by the medical profession, who renders the service and is thereby paid for it; by the consumer, who needs the service; by whatever third-party representatives may be involved, be they labor, management, commercial, or community interests."

If the desirability of providing comprehensive medical care as set forth by Dr. Sawyer is admitted, the question arises, how can it be financed. Dr. Sawyer states that "there are only two possible ways of doing this: either through large personal wealth, of sufficient size to encompass the unknown on a postpayment basis; or through large collective wealth, also of sufficient size to encompass the unknown on a prepayment share-the-risk basis.

> "Labor unions are in a position of having obtained this large collective wealth, through negotiation with

management as a fringe benefit of the union agreements, and are in the second position of wondering how to use this collective wealth so as to obtain the best in quality and in scope of medical care for their members and their dependents. Collective wealth, prepayment, share-the-risk—this is the substance of any insurance program, of course, whether it is life insurance, automobile insurance, fire insurance, health insurance. What labor has come to wonder is whether this program—collective wealth, prepayment, and share-the-risk—might provide something other than insurance, something better and broader and more meaningful in the way of medical care. And this has led us to the variety of labor health programs now in existence."

Dr. Sawyer is aware that "one of the fears most often expressed is that labor will 'take over' the control of medical care in our country. I find this a preposterous thought." In support of this statement, he quotes Mr. Meany as follows:

"We have no urge to dictate or to control the practice of medicine, for we know that we are not competent to do so. We want only to help bring into being the kind of programs and facilities that will attract the best doctors and that will bring out the best that is in them. We favor any method of organization and payment that will enable them to practice freely as their professional judgment indicates, with no economc barriers between our members and their services."

Third party medicine is referred to by Dr. Sawyer as one of the most hotly debated issues of the day:

"Third party interjection may take different forms. It may be individual patient inquisitiveness, group assertiveness, or corporate group responsibility. As administrators of such a corporate group, the officers of a health and welfare plan have a strong obligation to their members. These members have today become health-conscious as never before. They realize the potential power in their combined resources, and they are more and more aware of their ability to purchase good medical care, something they have too seldom had before. In a way, these are deprived people who sense in their group strength an opportunity to obtain the best—something they have long wanted.

"One of the oft-stated principles of union health centers is that there must be no interference with the doctors by lay boards or administrators or by the union membership. But it is unfortunately true that, wherever medical care is provided, there will always be individuals and groups who will in a sense be annoying to the medical profession. All doctors know that. If, in all third party participation, all eyes could be kept on the patient's needs and on efficiency and quality of care, there would be little difficulty. But in this area, the interpersonal relationships are particularly touchy and troublesome. That such difficulties cannot be overcome is scant tribute to the ingenuity and imagination of fair-minded people, be they doctors or union officials."

In conclusion, Dr. Sawyer states, "There are figures available to show that comprehensive care through group practice can markedly reduce hospital requirements."

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Overseas Visitors

The visit of 67 Italian doctors to Washington last August was a most pleasant occasion despite the torrid summer weather. Only a part of the visiting group arrived from Baltimore in time to attend a reception in the Medical Society's Library, others being detained because of transportation difficulties. Those who did make it were warmly greeted by Dr. W. LeRoy Dunn, President of the Society, and a number of other officers and members. Later the visitors were guests at dinner of individual Society members.

In his usual gracious manner, Dr. Dunn made the visitors feel at home and presented their leader, Dr. Marzio Modena, with a District of Columbia flag. The flag was later reported to have been lost and has since been replaced.

The following evening a reception was given at the Italian Embassy for the visitors, to which members of the Society were invited. On this occasion an original copy of "The Speeches of Peter Paul Piacentino," regarding methods of bloodletting, published in Italian in 1626, was presented by Ambassador Manlio Brosio on behalf of the visiting group as an expression of appreciation to Dr. Dunn and the Society for their hospitality.

Considering the short period afforded the Society to make plans for greeting their Italian colleagues, the affair worked out well enough. However, as your Observer told Mr. Joseph W. Thoman, of the United States Information

Agency, which requested the Society's coöperation, 4 or 5 days were hardly sufficient to make adequate plans. Mr. Thoman agreed and promised that in the future, when notified that delegations of physicians plan to visit the Nation's Capital, he will give the Society ample notice.

Needless to say, it is a privilege for the Society to have the opportunity to greet their overseas colleagues. There are indications that there will be several other opportunities to do so in the coming year.

In a communication received by your Observer from Mr. Thoman, he was informed that the primary concern of the USIA is to support overseas United States foreign policy and to meet information requirements growing out of current international events. Its long-range objective is to help develop among people overseas a sympathetic understanding of American life, culture, and national purposes, in other words, to project to peoples overseas an "image of America." This is being done through the media of press, radio, TV, motion pictures; also through libraries, bi-national cultural centers, and exhibits. All of the above-mentioned activities are carried out through the overseas USIA posts.

Another operation of USIA is its Office of Private Coöperation. This office is charged with assisting in the development of projects and activities among private individuals and organizations in carrying out what is known as the People-To-People Program. Approximately 40 committees, representing groups of the professions, business, industry, Armed Forces, service clubs, and other organizations are carrying out projects which are strictly non-Governmental to further this Program.

An ambitious project is the one being developed by the People-To-People Committee of the Medical and Health Professions. This is called HOPE. It involves the use of a "mothballed" Navy hospital ship as a floating medical training center in Southeastern Asia and the Far East. This undertaking is headed by Dr. William B. Walsh, of Washington, D. C.

In projecting its "image of America" USIA pays considerable attention to medicine in the United States. Articles, pamphlets, and feature stories relating to this matter are distributed overseas in appropriate foreign languages. Radio programs are sent out both in English and foreign languages over the Voice of America. This is also done on TV. Many motion pictures on medical and health subjects are available in the film libraries maintained by USIA posts overseas. Most of the larger posts maintain USIA libraries which have representative collections of books relating to medicine in this country.

The staff of the USIA post overseas is always available to facilitate local professional contacts and to supply pertinent information to U. S. doctors who visit countries abroad. The local USIA staff frequently can arrange for opportunities for U. S. doctors to speak to their professional colleagues overseas. They can also put them in touch with the appropriate professional associations and organizations.

As indicated in the beginning, our relationship with overseas colleagues is a "two-way street." They can be assured that whenever they visit Washington they will receive a hearty welcome from their colleagues here.

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Postgraduate Education via Radio

Late last October your Observer received a call from the offices of the Radio Corporation of America and the National Broadcasting Company in New York. The representative calling stated that what was to be known as the Medical Radio System would be inaugurated by RCA-NBC in the very near future. This he subsequently confirmed in a letter, explaining that the project was developed with a view of keeping physicians abreast of scientific progress, that the undertaking had been under consideration for 2 years, and that it was a "new technic of electronic transmission which makes possible the establishment of a new Nation-wide communication system exclusively for the medical profession." An opportunity was requested to present the details of the project at a meeting of the Medical Society's Executive Board. This was not found possible but arrangements were made for several officers of the Society to be present at a conference held on November 2, 1959, in the Society's building. Two representatives of RCA-NBC were on hand to present an audio-visual description of the new venture.

The following are highlights of their presentation:

- MRS will be an "exclusive-for-doctors" communication system which it is contemplated will begin serving the country's physicians in 1960. Its aim is to keep doctors abreast of "medical developments." These will consist of "medical news, information and educational programs over what amounts to a radio closed circuit system for the medical profession."
- MRS will "connect doctors' offices, hospitals, clinics and medical schools throughout the country."
- Doctors' offices will be equipped with FM Multiplex receiving sets "specifically designed and tuned to the frequency of the multiplex signal, along with necessary speakers."
- MRS will operate 6 days per week, 12 hours daily, bringing to doctors 3 separate 15-minute programs. Advance announcements of programs to be presented will be supplied doctors from which they can make their selection.
- Between medical programs there will be selected music for doctors' waiting rooms, medical programs being for doctors' ears only.
- Dr. Chester Scott Keefer of Boston has been chosen Chairman of MRS's Medical Editorial Board. Others have not been appointed to editorial and advisory boards; however, it is expected that this will be done shortly.
- Subscription to MRS is $10 per month, including installation and regular service of special FM Multiplex equipment. There is no other charge. The modest fee is possible because of the financial support being given by pharmaceutical companies.

Washington has been selected as one of the key cities in the country where physicians will have an opportunity to subscribe. It will be interesting to see how MRS is received by District physicians. Representatives who met with Society officers informed them that response in other cities had been most enthusiastic. They believe that physicians who do not take time out to attend meetings or to read their medical journals will find it convenient to absorb medical information the easy way.

They may be right, but, in your Observer's opinion, those who attend meetings will continue to do so, and those who read medical journals will find this a most satisfactory way to keep abreast of medical progress. However, radio programs would be a most helpful supplement to these media. Furthermore, medical news, a portion of which will be of a local nature, will be a valuable service to all physicians. Radio time will also be made available to the local Medical Society for its use.

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Endurance Contest?

For more than three decades the costs of medical care have been the subject of heated public discussion and the end is still not in sight. Adversaries in the controversy have critically explored all facets of medical care. Among the areas which have come under scrutiny have been patient-physician relationships.

An example of this is a column written by Carolyn Hagner Shaw which appeared in the Washington *Sunday Star* some weeks ago. Mrs. Shaw observed, "Visiting a doctor's office these days seems to have turned into an endurance contest—on the part of the patient, I mean. Granted that doctors are extremely busy people, it would seem that somehow they could manage to show a little more consideration for their patients."

Mrs. Shaw described the experience of a hypothetical patient with a miserable sore throat as follows: Upon calling the office of her physician, she was given an appointment for Tuesday at 2 o'clock. The nurse cautioned her—"And be sure to be on time."

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Arriving at the office, she found 10 other patients waiting. It was 1½ hours later that she finally got to see the doctor. The doctor explained that he had been detained by an emergency call. "If he was detained by an emergency call," Mrs. Shaw writes, "there is, of course, an excuse. Otherwise there isn't. It's just a plain lack of planning and an utter lack of consideration toward his patients."

Mrs. Shaw suggests a method of avoiding this unnecessary waiting in a doctor's office. When the patient calls, the nurse should say, "The doctor's office hours are from 2 to 5. If you come in on Tuesday, he will be able to see you during those hours." Then the patient, Mrs. Shaw states, would be under no misapprehension as to just when she could see the physician.

One reason Mrs. Shaw resents patients being kept waiting unnecessarily is that "too many doctors look upon us more as machines with intricate inner workings rather than as human beings." "Wouldn't it be better to soften this attitude," she says, "with a little more compassion and courtesy . . . ?"

Obviously, such generalizations as these cannot justifiably be applied to the profession as a whole. As Mrs. Shaw admits, there are extenuating circumstances. It is for the individual physician to determine for himself whether her criticism applies to him, keeping in mind that a mutually satisfactory relationship with the public depends on him more than on anyone else. The best public relations program devised is a poor substitute for such a relationship.

T. W

PROCEEDINGS OF THE ANNUAL BUSINESS MEETING

The Annual Business Meeting of the Medical Society of the District of Columbia was held on Sunday afternoon, November 22, 1959, in the Medical Society's building, with President W. LeRoy Dunn presiding. The Annual Reports of the Chairman of the Executive Board, the Secretary-Treasurer, and the Chairman of the Board of Credentials had been published in the October 1959 issue of the MEDICAL ANNALS and were adopted without reading.

The report of the Executive Board included Amendment I to the Constitution and By-laws of the Society, which added 3 new Sections to the Society: (13) Plastic Surgery, (14) Allergy, and (15) Physical Medicine and Rehabilitation. Honorary memberships were conferred upon Lieutenant General Leonard D. Heaton, M.C., U.S.A., Surgeon General of the United States Army; Major General Oliver K. Niess, M.C., U.S.A.F., Surgeon General of the United States Air Force; and Senator Lister Hill, of Alabama.

Dr. Preston A. McLendon, Chairman of the Executive Board, was called on to read the Supplementary Report of the Board, which is published following these Proceedings. This report was accepted as read with the exception of Amendment III to the Constitution and By-laws. This amendment, which would qualify Government physicians for Active membership in state and county medical societies, was tabled pending a visit to Washington of representatives of the American Medical Association for discussion of the matter.

Drs. Henry L. Darner, C. Willard Camalier, Jr. and Edgar M. McPeak were nominated for election to the Board of Trustees of Medical Service for a 3-year term beginning at the Annual Meeting of Medical Service in April 1960.

Mr. Frank R. Jelleff was nominated to succeed himself as the Society's appointee to the Board of Trustees of Group Hospitalization, Inc., for a 5-year term, beginning at its Annual Meeting.

A list of 97 physicians who had completed a probationary year of membership in the Society had been mailed in advance to the members and their election was confirmed by the Society.

ELECTION OF OFFICERS

In the absence of Dr. Robert H. Groh, Chairman of the Nominating Committee, Dr. J. Ross Veal presented the following candidates to the Society for election:

President-elect: Dr. Donald Stubbs
First Vice President: Dr. Theodore J. Abernethy
Second Vice President: Dr. Petrena Abbe Shea
Member of the Executive Board for a 4-year term: Dr. W. LeRoy Dunn
Member of Board of Credentials for a 3-year term: Dr. Edward W. Nicklas
Delegate to the American Medical Association for a 2-year term: Dr. Ralph M. Caulk
Alternate Delegate to the AMA for a 2-year term: Dr. Karl C. Corley

Each nominee for office was voted upon separately and the full slate elected.

Dr. James W. Watts and Dr. Caulk were called upon to escort Dr. Stubbs, the new President-elect, to the platform. Dr. Stubbs stated that he was not prepared to give a formal speech of acceptance but expressed his gratitude for the membership's evidence of trust in him and particularly for the year of grace allotted him before he had to assume the responsibilities of leadership.

President Dunn called on those present to stand for a moment in tribute to 24 members who had died during the past year.

Dr. McLendon was recognized. Referring to his tenure as officer of the Medical Society, beginning as President-elect and terminating with the chairmanship of the Executive Board, he said he gave up the office with a lot of reluctance as well as relief. Turning to the retiring President, Dr. Dunn, he presented him with an inscribed gavel as a memento of his term of office.

Dr. Dunn stated it had been a pleasure and a privilege to serve as President of the Medical Society. He then called Dr. Watts, the immediate Past President, to the platform and presented him with a Certificate of Appreciation for his services to the Society. Dr. Watts acknowledged the tribute with thanks, remarking that he "just loved" certificates.

GAVEL FOR RETIRING PRESIDENT

Dr. W. LeRoy Dunn (right), retiring President of the Medical Society of the District of Columbia, receives an inscribed gavel as a symbol of his office from Dr. Preston A. McLendon, Chairman of the Executive Board of the Society, at the Society's Annual Business Meeting, November 22.

The meeting adjourned, following which refreshments were served in the library.

SUPPLEMENTARY REPORT OF THE EXECUTIVE BOARD

As indicated by the agenda, which you received a week ago, this report is of more than ordinary significance to Active members of the Society. In view of its contents, it has been prepared with care in the hope that it will not be overlong, but will include all essentials in regard to the subjects dealt with.

Proposed regulations re registration of all radiation sources in the District of Columbia. In a communication addressed to Commissioner David B. Karrick last April, Dr. Daniel L. Finucane, Director of Public Health, stated, "The increasing amount of ionizing radiation in man's environment may represent a serious public health problem in the future unless an adequate public health control program is established." Regulations requiring registration of sources of radiation from radioisotopes or from high voltage equipment, he said, were necessary. He enclosed regulations prepared by the Department of Public Health and the Committee on Radiation Hazards of the Medical Society's Section on Radiology, with the assistance of the Bureau of Standards, the Atomic Energy Commission, and the Public Health Service.

Approval of the regulations was voted by the Section on Radiology, which recommended their endorsement by the Executive Board. The Board gave its approval at a meeting on July 27, 1959.

The regulations provide for the registration of X-ray equipment; thus, physicians using such equipment are directly affected. It should be emphasized, however, that the regulations provide only for registration and not inspection.

The regulations are not yet in effect. They will not become effective until approval is given by the District of Columbia Dental Society, which is expected in the near future. The Executive Board recommends that the Society approve the action of the Section on Radiology.

Proposed Unincorporated Business Tax. On the day of the announcement in Washington newspapers that District Commissioners had under consideration the Unincorporated Business Franchise Tax, the Secretary obtained a copy of the proposal and submitted it to the Executive Board at its next regular meeting.

The Board directed the Secretary to seek the advice of experts as to what course should be pursued. Upon inquiry, he was informed that the proposed tax of physicians practicing and living in the District would be substantially increased. The hardest hit would be those having offices in the District but living in nearby Maryland and Virginia. The advice was to oppose the tax for reasons which, with the Board's approval, were incorporated in a letter written by Dr. W. LeRoy Dunn, President of the Society, to the Honorable Robert E. McLaughlin, President of the Board of Commissioners. Dr. Dunn's letter read in part:

"The Executive Board, speaking for the Society, opposes the proposal to maintain the current rate of 5 per cent of net taxable income and to include the income of personal service businesses and the income from the rental of property, thereby causing all of such businesses to be subject to the franchise tax. In the opinion of the Board, the present unincorporated business franchise tax is inequitable and unrealistic and would become more discriminatory by eliminating the exemption afforded personal service businesses, making them subject to the tax."

Dr. Dunn's letter was forwarded to the Commissioners prior to the hearings on the various tax matters. In spite of the opposition of the Society and organizations representing other groups, the Commissioners approved the Unincorporated Business Franchise Tax along with other additional taxes. However, it remains for Congress to give its final approval.

As the "businesses" specified in the Unincorporated Business Tax include professional services rendered by doctors, architects, lawyers, dentists, and other professional people, it is proposed that their views be sought and, if they concur in the Board's stand, that they unite in their efforts to defeat the proposed tax.

Proposed Amendments II and III to the Constitution and By-laws. As most of you will appreciate, the Executive Board was most reluctant to come to you at this meeting with the proposal that dues of Active members be increased. However, it saw no alternative. After all, the Society could no more escape the inflationary trend than anyone else, nor could it avoid financial obligations brought about by time and circumstance.

A leaflet containing facts and figures relating to the financial operations of the Society was mailed to all Active and Life members with the agenda. Copies are again provided each one present here this evening.

It will be noted that salient facts in regard to the Society's financial condition are stated in the form of questions and answers. Included also is a graph illustrating the spiraling costs of operation. If you have any questions in regard to the facts set forth in the leaflet, officers of the Society who are present will endeavor to answer them.

The chart on the last page of the leaflet shows the net income of the Society in the year 1955, the last year in which an increase in dues became effective. As indicated, the net income in that year was $7,283.45. By the close of 1959, it is estimated that the net income will have shrunk to $336.73. This is an estimate based on 9 months of operation in 1959. On the basis of present income, it is estimated that in 1960 there will be a deficit of $7,745.00.

The Board has considered the possibility of reducing expenses of operation. However, this, in its opinion, would be as difficult as it is unwise. The major item of expense is salaries and wages. These, it has been ascertained by periodical surveys, are average and some are on the low side. Other costs which could be materially reduced are for property upkeep, utilities, supplies, printing and many necessary miscellaneous items.

As has been explained in several previous reports, expenditures of the Society's funds are closely supervised by the Finance Committee of the Executive Board. Each month a list of all expenditures is submitted for the Committee's approval. A financial report is submitted quarterly to the Board as a whole. This report sets forth the income and expenditures of the Society as compared with the current budget.

The Society still owes $28,000 for remodeling and furnishing 1710 M Street, N.W. Interest on this loan is $1,375.00 annually. In addition to the necessity of retiring this indebtedness, there is a need for setting aside funds for a building program. The latter is very important because this building, the address of which is 1718 M Street, is 40 years old and, although outwardly in good condition, is becoming more and more costly to maintain. The restored property at 1710 M Street has perhaps a life of 10 to 15 years. In another 15 or 20 years, the Society may wish to replace both buildings. It is not too early, therefore, to set aside funds for this purpose. Finally, the Society should have adequate cash reserves to meet any contingency. The $30,000 which it is estimated will be on hand at the end of this year is not sufficient for this purpose, considering the size of the Society's operations.

The estimated budget for 1960, which of necessity was condensed, is also shown on the last page of the leaflet. The Board feels that this is a fair and conservative budget and represents the best estimate which can be made at this time.

In view of the above facts, the Board submits the following Amendment for your approval:

AMENDMENT II

Section 1. Sections 2 and 3, Article 1, Chapter IV of the Constitution and By-laws are hereby repealed.

Section 2. Effective January 1, 1960, Active members shall pay seventy dollars ($70.00) per year in dues, except that recent graduates who have been in the active practice of medicine for less than three years shall pay for their first year twenty dollars ($20.00), for their second year thirty-five dollars ($35.00), and thereafter seventy dollars ($70.00). Members, at their option, may pay such dues in two equal installments, the first installment being due and payable January 1 of each year and the second installment being due and payable the succeeding June 1.

Section 3. Affiliate members shall pay thirty-five dollars ($35.00) annually.

At its meeting on December 5, 1958, the AMA's House of Delegates adopted a resolution urging component societies of the AMA "to make every effort to provide a type of membership for Armed Forces, Public Health Service, and Veterans Administration physicians which will enable them to become Active members of constituent societies and of the American Medical Association."

The Society's Committee on Constitution and By-laws considered this resolution at its meeting on September 4, 1959 and voted to submit the following amendment to the Executive Board with its recommendation that it be presented to the Society for its approval. The Board concurred.

AMENDMENT III*

Chapter II, Article II, be amended by deleting the last sentence and substituting the following: The physician to the President of the United States, doctors of medicine representing the American Medical Association and the American Red Cross, doctors of medicine *serving in the Armed Forces, the Public Health Service and the Veterans Administration,* who reside in or have offices in the District of Columbia and who are citizens of the United States, may be elected to Active membership in the Society.

Recently a representative of the AMA visited the Society's Executive Offices to discuss full membership for Government physicians in the above categories. He stated that the Association was most anxious that these physicians become Active members of their local medical societies.

The Board does not believe that many of them will take advantage of the opportunity unless their AMA membership is contingent upon their being members of constituent societies. However, the Board endorses Amendment III, believing that the resulting goodwill will redound to the Society's credit.

Physicians not licensed in the District of Columbia who practice in Washington hospitals. Several months ago it was learned that a number of physicians practicing in Washington hospitals did not hold a regular license. In each instance it was said they had borderline privileges. This prompted the Secretary to seek further information in regard to the situation.

Subsequently, he reported to the Board that District physicians having borderline privileges in Maryland and Virginia could see patients in their homes who otherwise came to their offices, but they were not permitted to practice in hospitals in these jurisdictions. He was informed that it was a standing rule in these hospitals that physicians practicing in them must have a full license.

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* The portion italicized is not in the present Constitution and By-laws.

The same situation, however, does not exist in the District, where a number of physicians practicing in Washington hospitals have borderline privileges only. This matter was brought to the attention of Dr. Daniel L. Finucane, Secretary of the Commission on Licensure, who wrote the Secretary under date of September 23, 1958, stating that physicians having borderline privileges were unrestricted in so far as it applies to their private or hospital practices and that the Commission "after carefully considering all of the facts including certain statistical data . . . voted to take no action. That is to say, the matter of acceptance of borderline permits by our local hospitals is a matter for the individual hospital."

Following receipt of this communication, the Board directed that the Secretary write the Hospital Council, which took the same position as the Commission.

In a subsequent discussion with Dr. Finucane, it was ascertained that he looked favorably upon legislation requiring all physicians practicing in Washington hospitals to have a full license. The matter has now been referred by the Executive Board to the Committee on Public Policy for its recommendations.

Council on Rehabilitation. As stated in the agenda, the 3-year study conducted by the Council which was to terminate on September 30, 1959, was given a new lease on life by the Office of Vocational Rehabilitation, Department of Health, Education, and Welfare. Additional funds have been made available so that the study can be completed.

All expenses incidental to completing the survey are paid for from funds made available by the Government except for rental of the offices used in 1710 M Street, N.W., the telephone, and other utilities. Upon completion of its report, the Society will be informed of the Council's findings and recommendations.

It is already apparent that the Council's report will receive wide attention and contribute to a much better understanding of the rehabilitation situation in the Washington Metropolitan Area.

Nominations to the Board of Trustees of Medical Service. At its meeting on November 2, the Executive Board had presented to it the request of Medical Service that it nominate successors to Drs. Henry L. Darner, Ernest A. Gould and Edgar M. McPeak as members of its Board of Trustees for a 3-year term beginning at its Annual Meeting in April 1960. The nominees proposed by the Board are:

Dr. Henry L. Darner, to succeed himself
Dr. C. Willard Camalier, Jr., to succeed Dr. Ernest Gould
Dr. Edgar M. McPeak, to succeed himself

Dr. Gould, it was reported, did not wish to continue to serve, and the Board therefore chose Dr. Camalier as his successor.

As was made clear in the agenda sent you, other nominations may be made from the floor. If there are additional nominations, the 3 receiving the most votes will be declared the nominees.

Appointment of member of Board of Trustees of Group Hospitalization, Inc. In a letter received from Mr. F. P. Rawlings, Jr., President of Group Hospitalization, Inc., the Society was requested to appoint a successor to Mr. Frank R. Jelleff, who, incidentally, is the only lay representative on the Board of Trustees representing the Society. Mr. Jelleff has served well and faithfully as the Society's sole lay representative for many years. He has indicated his willingness to continue. The Board therefore recommends his appointment for another 5-year term.

Proposed emergency medical home care program for the indigent in the District of Columbia. From time to time in the past several years, the Society has held discussions with representatives of the District Health Department in regard to emergency home calls at night on medically indigent patients in the District of Columbia. These discussions were initiated because the Medical Bureau had received a number of such calls and, as instructed, had referred them to Police Precincts, where they are held until the next day unless immediate response is indicated. Where it was apparent that a real emergency existed, ambulances were sent, usually by the Bureau.

Physicians to the poor make day calls on patients when directed by the Public Assistance Bureau of the Health Department, which is open between the hours of 9:00 a.m. and 5:00 p.m. Before and after these hours, the calls, as stated above, are referred to Police Precincts. This arrangement was unsatisfactory and a solution, it was agreed, should be found.

Under date of October 9, 1959 (following a sampling survey made by Medical Bureau indicating that 30 per cent of the night calls, 1,200 per year, are from persons medically indigent), the Health Department submitted a proposal that emergency home calls at night to indigent patients be made by physicians listed with Medical Bureau. These physicians would be paid from Health Department funds upon submitting a voucher for the calls made.

The Board considered the matter and approved the proposal. It agreed, too, that in view of the indigency of the patients being served that $7.00 for each visit, although a modest fee, would be acceptable to physicians willing to participate. Furthermore, that the Society's membership be canvassed to ascertain who wished to be listed on the panel.

Future activities. Naturally, the Board cannot foresee all the matters which will require its attention in the next year. However, the following are already in prospect:

1. Hearings on the costs of medical care in the District of Columbia by a Subcommittee of the Senate, of which Senator Wayne Morse is Chairman, will undoubtedly be held sometime during the next session of Congress. If called upon, the Society will be represented by its President and, where indicated, by other officers and members of the Society.

2. Hearings on the Unincorporated Business Tax are also anticipated.

Where programs are concerned, the following are in prospect:

1. A series of scientific programs for practicing physicians far more ambitious than has been sponsored in recent years have been scheduled. The Committee on Postgraduate Education has already announced dates on which several of these programs will be presented, most of them during the first half of 1960.

2. A Medical Economics Conference is scheduled for April 13, 1960. The Board feels certain that this will attract wide attention and will be well attended. It is anticipated that the Conference will be sponsored by the Medical Council of the Washington Metropolitan Area, of which the Society is a member.

3. The Clinical Session of the AMA is scheduled to be held in Washington, November 29–December 2, 1960. In view of the responsibilities assumed by the Society for this meeting, the Annual Scientific Assembly for next year has been cancelled.

PRESTON A. McLENDON, M.D., *Chairman*
VICTOR R. ALFARO, M.D.
W. LEROY DUNN, M.D.
MILTON M. GREENBERG, M.D.
RAYMOND T. HOLDEN, M.D.
WILLIAM ROSS MORRIS, M.D.
JAMES W. WATTS, M.D.
THEODORE WIPRUD, *Secretary*

CLINICAL STUDY OF CHILDHOOD SOLID TUMORS

The coöperation of physicians is requested in a therapeutic study of childhood solid tumors at the Clinical Center, National Institutes of Health, Bethesda, Md. This study is being conducted by the National Cancer Institute and has as its primary purpose a search for therapeutic agents that favorably affect the course of the disease. The tumor types of particular interest include Wilms' tumors, neuroblastomas, rhabdomyosarcomas, sarcoma botryoides, and the lymphomas. Wilms' tumor and rhabdomyosarcoma are quite responsive to actinomycin D and neuroblastomas respond to alkylating agents. It is hoped that some of the newer agents active in animal tumors will improve on the present results from chemotherapy.

It is preferred that patients be referred either before or after they have received the initial therapy (surgery and/or radiation) before the advanced bedridden stage. Accepted patients will be studied for varying periods of time and may be followed, at the discretion of the referring physician, either by the referring physician or physicians at the Clinical Center. A comprehensive and individualized program will be instituted for each patient and will include appropriate supportive and symptomatic care as well as the above-mentioned specific anti-tumor therapy.

Physicians interested in the possibility of referring such patients should write or telephone Dr. Clyde O. Brindley, Senior Investigator, or Dr. Emil Frei III, Head of the Chemotherapy Service, at the National Cancer Institute, Bethesda 14, Md. The telephone number is Oliver 6-4000; Dr. Brindley can be reached on Extension 4252 and Dr. Frei on Extension 2500.

On the Lighter Side

Atlanta, Georgia was founded in 1837 when a railroad surveyor named Stephen H. Long drove a wooden stake into the dry red clay of Georgia near what is now known as the center of the financial district of Atlanta. This was the turn-around point of the state's first railroad and was named appropriately, Terminus. Later the name was changed to Marthasville, and in 1847, 10 years after its founding, it was incorporated as the city of Atlanta. Thirty-one years later Atlanta was made the state capital.

Between 1837 and The War Between the States, Atlanta grew from a mere handful of people to a busy city of 10,000. Six years after General Sherman impoverished the entire population and destroyed their homes by fire the city that wouldn't die exploded to 21,789 souls.

This brief historical prologue of a proud city will give you an idea of the Nation's twenty-third largest city that housed the Southern Medical Association's convention in 1959 and welcomed me as a visitor and conventioneer.

The eating was good in Atlanta. Herren's, Johnny Rebs and Mammy's Shanty cater to your drooling taste with a true gourmet's delight. The "Georgia Cracker Sampler Plate" at Mammy's Shanty was conjured for the Damyankees. There was a selected succulent piece of fried Georgia chicken, a tasty Georgia pork chop done to a turn, a spiced and tangy Georgia deviled crab, and a large avocado stuffed high with delicious steamed shrimp salad. The potatoes were French-fried to the very ultimate in crispness, and the hominy grits were soaked in Georgia red-eye gravy to give them added taste appeal. The hot Georgia biscuits were dripping in melted butter and delicately bundled in a snowy white napkin. The beverages were ladled out with downright abandon, and if one managed to devour this stack of food there was the Georgia pecan pie fluffed high with whipped cream to end this gastronomic delight.

The most awe-inspiring and absorbing sight for the history-minded visitor to Atlanta is the world-famous painting of The Battle of Atlanta, housed in the Cyclorama Building in Grant Park. This masterpiece, completed in 1886 after 2 full years of work by 3 artists, measures 50 feet in height and 400 feet in circumference. It weighs 18,000 pounds, 8,000 pounds of which is paint, and depicts this famous battle which proved to be the turning point in The War Between the States.

Thousands of blasted tree stumps, bushes and shell-torn shrubbery, along with hundreds of lifelike figures of Confederate and Federal soldiers, torn rails and blasted road beds with shells, cannon and other familiar fragments of war, have been placed effectively in the circular area at the base of the painting. This grouping is so lifelike and blends into the picture so intimately that it is difficult to determine where the picture ends and the pageantry begins.

Facts I never knew about Atlanta until now: that Atlanta is the second highest large city in the United States, with an altitude of 1,050 feet; that Lenox Square in Atlanta is the largest regional shopping center in the South, covering 800,000 square feet. There are no alleys, no stop signs, no cars or trucks, no traffic problems because there are circulating roads around the Center which enable a shopper to get to any of the 6,000 parking spaces in jig time. Atlanta is the biggest Medical Center in the South and has 29 colleges and universities within its boundaries. Atlanta is heading toward 2,000,000 people with a metropolitan area spreading over into 16 counties.

Washington medical personalities glimpsed here and there in Atlanta during the convention: Drs. Dale Alford, Harry Ford Anderson, Joe and Catherine Blumberg, Robert Barter, Irving Brick, William Earl Clark, Harry Lee Claud, Milton C. Cobey, Alan Crain, William J. G. Davis, R. E. Dunkley Marvin Fuchs, James Gant, Marvin Gibson, Arnold Gould, Robert Groh, William P. Herbst, Henry Hornthal, Oscar B. Hunter, Jr., Helen Gladys Kain, Eugene Lipow, Margaret Nicholson, Raymond Osbourn, E. E. Quayle, James Sites, Louis Schwartz, George Stuart, Leo Varden, George Ware, Thomas A. Wilson, William Wallace, Dewitt DeLawter, Emma Hughes, Max Koppel, Joseph Miller, O. Anderson Engh, Allen Ferry, James M. Moss, and George Z. Williams.

CHUCKLE NOTE: Home cooking: Where most husbands wish their wives were. Did you hear about the wife who has her husband eating out of the palm of her hand? She hates to do the dishes. Happy New Year!

J. EARL KADAN, M.D.

News and Personals

MEETINGS

The Midwinter Seminar on "Recent Advances in Drug Therapy—New Pills for Old Ills," sponsored by the Committee on Postgraduate Education of the Medical Society of the District of Columbia, will consist of a series of 3 meetings on Wednesday nights, beginning February 10, at 8:00 p.m., in the Medical Society's auditorium.

Dr. Theodore E. Woodward, Chairman of the Department of Medicine, University of Maryland School of Medicine, will moderate the first panel discussion on "Antibiotics and Steroids." Participating in the discussion will be Dr. Monroe J. Romansky, Professor of Medicine, George Washington University School of Medicine; Dr. Joseph J. Bunim, Clinical Director of the National Institute of Arthritis and Metabolic Diseases, Public Health Service; and Dr. Laurence H. Kyle, Professor of Medicine, Georgetown University School of Medicine.

On February 17 the topic for presentation will be "Tranquilizers and Sedatives," moderated by Dr. Joel Elkes, Chief of the Clinical Neuropharmacology Research Center, National Institute of Mental Health, Public Health Service. Participants in the program will be Dr. Reginald S. Lourie, Director of the Department of Psychiatry, Children's Hospital; Dr. Otis R. Farley, Chief of Staff at St. Elizabeths Hospital; Dr. John D. Schultz, Medical Director, District of Columbia General Hospital; and Dr. Jonathan O. Cole, of the National Institutes of Health, Bethesda, Md.

The third meeting, on February 24, will be cosponsored by the Washington Heart Association. The topic for discussion will be "New Advances in Diuretics and Cardiac Drugs." Moderator will be Dr. E. Hugh Luckey, of the New York Hospital-Cornell Medical Center. The program has not been completed but an announcement will go to the membership.

Dr. Seymour Alpert, Chairman of the Committee on Postgraduate Education, states that his committee has put a great deal of effort in presenting postgraduate lectures of a high caliber. Dr. Thomas W. Mattingly, Director of Medical Education, Washington Hospital Center, a member of the Committee, is in charge of the Midwinter Seminar.

The Section on Ophthalmology will hold its next dinner meeting at the Kennedy-Warren, February 9, 1960. The guest speaker will be Dr. Frederick W. Stocker, Associate Professor of Ophthalmology at Duke University; his subject, "Selection of Type and Size of Corneal Grafts."

The Washington Section of the American Nuclear Society has scheduled a meeting for February 17, 1960 in which Dr. Lee Farr, of Brookhaven National Laboratory, will speak on "The Medical Uses of Neutrons." The meeting will begin at 6 o'clock with a brief social hour, followed by dinner at 6:45 and program at 7:45. The meeting place is still to be announced. Any members of the Society interested in this subject are invited to attend.

The American College of Surgeons will hold a comprehensive 4-day Sectional Meeting, February 29–March 3, in Boston at the Statler-Hilton and Sheraton Plaza Hotels, with many sessions scheduled at leading Boston hospitals.

Most of the speakers are from the Boston area. However, according to the preliminary program, 2 members of the District Medical Society are scheduled to speak. They are Dr. Robert J. Coffey, Professor of Surgery, and Dr. John H. King, Jr., Clinical Associate Professor of Ophthalmology, both of Georgetown University School of Medicine.

GENERAL NEWS

A weekly program entitled, "**Highroad to Health,**" is currently carried by the Nation-wide network of ABC-Radio. The program has the supervision and support of the American Medical Association and is being produced in coöperation with Lederle Laboratories, a Division of American Cyanamid Company. The program began the first week in December and can be heard in Washington on Sunday evening at 10:15 over WMAL for a 13-week period.

Each program, 15 minutes in length, consists of a short drama about a medical problem in a family setting and its handling by the family physician. In the latter part of the program, a guest physician, chosen by the AMA, comments on the subject of the drama in response to questions asked by the program host. The program is designed for family listening.

The Association of Cancer Institute Directors is a new organization formed by directors of cancer research institutes in America for the purpose of exchanging information among the various institutes. Dr. George Moore, Director of the Roswell Park Memorial Institute, was elected President at its first meeting, held in October, at the Memorial Center for Cancer and Allied Diseases in New York. Among the members of the Association are representatives of the National Cancer Institute in Bethesda.

Announcement was made, November 17, that **Providence Hospital** and the District of Columbia Chapter of the American Red Cross had reached an agreement whereby blood from the Red Cross will be available for all patients at Providence Hospital who are eligible to receive it.

Mr. Charles S. Dewey, Chairman of the D. C. Chapter, stated that the agreement means that all hospitals in the Washington region are fully coöperating and participating in the Red Cross Blood Program and that all persons who have donated blood through the Red Cross will now be able to receive it in any hospital in this area.

Dr. James Watt, Director of the National Heart Institute, PHS, has been appointed **Special Assistant for Aging** to the Secretary of Health, Education, and Welfare. Secretary Flemming said he created the post as a further recognition of the Department's concern over the aging problem. Dr. Watt will continue to serve as Director of the Heart Institute.

Howard University School of Medicine received a check for $10,000, December 5, from the Ancient Egyptian Arabic Nobles of the Mystic Shrine of North and South America to promote research in the University's Department of Pediatrics on sickle-cell anemia. The Department of Pediatrics at Howard, headed by Dr. Roland B. Scott, has won national recognition for its long-term work on sickle-cell anemia, a disease which affects Negro children predominantly.

The Public Health Service announced 71 grants, totaling $1,751,270, on December 11 for research in various aspects of aging. Among the grantees is George Washington University, which will receive $9,684 to be used for cytological study of tumor production by Rous virus. Dr. Paul W. Bowman will direct the research.

PERSONALS

Dr. Raymond T. Holden was appointed Acting Medical Director and Administrator of Columbia Hospital for Women at a meeting of its Board of Directors, November 18. The new appointment was necessitated by the death of General Kenner, Medical Director of the Hospital, on November 12.

Dr. Holden, a widely known obstetrician and gynecologist, is Clinical Professor of Obstetrics and Gynecology at Georgetown University School of Medicine. He is Past President of the Medical Society of the District of Columbia and is serving presently as its senior delegate to the American Medical Association.

Dr. Marvin E. Perkins, first Chief of the Bureau of Mental Health and a member of the staff of the

District of Columbia Department of Public Health since 1955, resigned his position, effective January 8, to become Director of New York City's Community Mental Health Board. Dr. Daniel L. Finucane, District Director of Public Health, described his departure as "a loss both to the Department of Public Health and to the total community of the District of Columbia." The Bureau of Mental Health was established by the Commissioners only a year ago and was considered a basic achievement in reorganizing the mental health services of the Department

Dr. George W. Metcalf, who was brought into the Department in 1957 by Dr. Perkins to provide psychiatric leadership in the development of adult programs, was appointed by the District Commissioners to succeed Dr. Perkins as Chief of the Mental Health Bureau.

Dr. Metcalf received his medical degree from the University of Texas Medical School at Galveston in 1949. Before joining the District Health Department he was Deputy Chief of Neuropsychiatric Services at the Outpatient Clinic of the U. S. Public Health Service. He is certified by the American Board of Psychiatry and Neurology.

Dr. Manson B. Pettit, a clinical director at St. Elizabeths Hospital and a member of its staff for 30 years, retired at the end of December to become Superintendent of the St. Joseph (Missouri) State Hospital on February 1.

In 1947 Dr. Pettit became the first psychiatrist with the Arlington County Alcoholic Clinic, which has become the County Mental Hygiene Clinic. He has carried on this work along with his Hospital duties. For the past 25 years he has volunteered his services at the Washington Institute of Mental Hygiene, and for the past 6 years has done volunteer work with the Eastern Branch Kiwanis Clinic.

Mrs. Pettit, a member of the District Board of Education for 4½ years, resigned her post to accompany her husband to Missouri.

Dr. Sara E. Branham, an Associate member of the D. C. Medical Society, was named "Woman of the Year" by the Women's Medical Society of the District of Columbia and was honored at a dinner meeting, December 2, at the Kennedy-Warren. Dr. Branham, who has won national distinction as a bacteriologist, spoke to the group on "The Defense of Epimetheus."

Dr. Branham holds 6 academic degrees, including doctorates in philosophy and medicine. In 1937 she received the honorary degree of Doctor of Science from the University of Colorado; in 1950, the first Outstanding Achievement Award from Wesleyan College Alumni Association; and in 1952, a Distinguished Service Award from the University of Chicago Medical School Alumni Association.

She was a professorial lecturer in preventive medicine at George Washington University from 1928 to 1952. She represented the United States at the First International Congress for Microbiology, held in Paris, and at the Second Congress in London, in 1936.

She is a diplomate of the National Board of Medical Examiners and of the American Board of Pathology, a member of the American Association for the Advancement of Science, the American Public Health Association, and the American Academy of Microbiology. She has contributed more than 70 papers on the results of research in the fields of bacteriology and immunology, is the co-author of 2 books, and contributor to a third.

When she retired last July as chief of the section on bacterial toxins of the National Institutes of Health, she had completed 30 years' service in the United States Public Health Service.

Dr. Edgar W. Davis was elected President of the Southern Thoracic Surgical Association at its Annual Meeting in Gulfport, Miss., November 20-21. Dr. Davis is Clinical Professor of Surgery at Georgetown University School of Medicine.

Dr. William P. Herbst was elected President of the Middle Atlantic Section of the American Urological Association at its Annual Meeting in White Sulphur Springs, West Virginia, November 14.

Dr. W. Dabney Jarmon was elected Secretary-treasurer of the Section.

Dr. Fred L. Soper, Director Emeritus of the Pan American Sanitary Bureau, was elected a vice president of the American Public Health Association during its Annual Meeting in Atlantic City, October 19-23.

Dr. John D. Porterfield, Deputy Surgeon General of the United States Public Health Service, was elected to another 3-year term on the Association's Executive Board.

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Information, through which requests for speakers for lay groups, including radio programs, can be filled.

Date	*Speaker*	*Subject or Title*	*Organization*
November 3	Dr. John Kleh	Aging	Inga's Angle, WRC-TV
November 3	Dr. Benjamin Rones	Detection of Disease through the Eye	Annual Luncheon Meeting, Prevention of Blindness Society
November 6	Dr. Calvin T. Klopp	Cancer	Inga's Angle, WRC-TV
November 8	Dr. Christopher T. Bever	The Ethics of Psychoanalysis	Fairfax Unitarian Church
November 10	Dr. Ralph M. Caulk	Hazards of X-ray Examination	Inga's Angle, WRC-TV
November 13	Dr. Robert H. Parrott	Cystic Fibrosis	Inga's Angle, WRC-TV
November 16	Dr. Peter A. Santucci	The Gifted Child and His Problems and Recognition	Mental Health Faculty Meeting, Montgomery Hills School
November 17	Dr. Herbert P. Ramsey	Practical Suggestions for Women on Obstetrics and Gynecology	Inga's Angle, WRC-TV
November 20	Dr. Preston A. McLendon	Juvenile Delinquency	Inga's Angle, WRC-TV
November 24	Dr. Marcel J. Foret	How to Recognize a Heart Attack	Inga's Angle, WRC-TV
November 27	Dr. Raymond A. Osbourn	Acne	Inga's Angle, WRC-TV
December 1	Dr. Christopher T. Bever	How Children Learn and Grow	Weller Road School PTA, Wheaton, Md.
December 1	Dr. Darrell C. Crain	Rheumatism and Arthritis	Inga's Angle, WRC-TV
December 1	Dr. Daniel L. Finucane	Infant Mortality	Washington Civitan Club
December 1	Dr. Winfred Overholser	College Fraternities	Founders' Day Celebration, Alpha Sigma Phi Fraternity
December 4	Dr. Robert P. Odenwald	Child Psychiatry	Inga's Angle, WRC-TV
December 13	Dr. Julius Schreiber	Dealing with Common Problems in Marriage and Family Life	Mr. and Mrs. Club of Har Tzion Congregation, Kensington, Md.
December 15	Dr. Michael M. Miller	Various Aspects of Psychodrama and the Juvenile Court of Montgomery County	Patty Cavin Show, WRC-Radio

Both physicians are Associate members of the D. C. Medical Society.

Dr. Jesse Keene was reëlected President of the Public Interest Civic Association, December 7.

Dr. John A. Kennedy, Director of Surgical Service, Department of Medicine and Surgery, Veterans Administration, was elected to the Board of Governors of the American College of Surgeons, October 1, to serve for a 3-year period.

Dr. George Speck, specialist in obstetrics and gynecology, is the new president of the medical staff of Alexandria Hospital. Dr. Speck is an Associate member of the District Medical Society.

Among the 29 District delegates appointed by District Commissioner Robert E. McLaughlin to the 1960 White House Conference on Children and Youth are 3 members of the District Medical Society, namely, **Dr. Daniel L. Finucane,** Director of the D. C. Department of Public Health; **Dr. Preston A. McLendon,** representing the American Academy of Pediatrics; and **Dr. C. Herbert Marshall,** Vice Chairman of the Commissioners' Youth Council. The 1960 Conference will be held in Washington, March 27 to April 2.

Dr. J. Robert Andrews co-sponsored a prize-winning exhibit with Drs. Herman D. Suit, Robert W. Swain, and Stanley E. Sneider, all of Bethesda, Md., at the 45th Annual Meeting of the Radiological Society of North America, in Chicago, November 16–20. The exhibit, entitled "Iridium-192 in Cancer Therapy," received an Honorable Mention citation from Society officials.

Dr. Zigmond M. Lebensohn, Chairman of the Medical Society's Committee on Mental Health, represented the Society at the Sixth Annual Conference of Mental Health Representatives, sponsored by the Council on Mental Health of the AMA, which was held at the Drake Hotel in Chicago, November 20–21. The theme of the meeting was "Organized Medicine in Its Relationship to the Hospitalized Psychiatric Patient." Dr. Lebensohn was also the recorder and reporter for a panel on "Psychiatric Services in General Hospitals," chairmanned by Dr. M. Ralph Kaufman, of New York.

Dr. Bernard E. Nunez, Clinical Assistant Professor of Medicine, Georgetown University School of Medicine, is in England for a year's study at the Ross Institute, University of London.

CORRESPONDENCE

510 South Beretania Street,
Honolulu 13, Hawaii, October 1, 1959

To Mr. Wiprud:

We of the Hawaii Medical Association take much pleasure in extending a cordial invitation to your members to attend our 104th Annual Meeting, to be held in Honolulu, May 12, 13, 14 and 15, 1960.

King Kamehameha IV granted our charter on July 19, 1856, and the doctors of Hawaii have continued to meet through 4 successive types of government. The monarchy was overthrown in 1893 and the following year a president was named to head the new Republic. In 1898 Hawaii was annexed by the United States, and Sanford Ballard Dole, the Republic's only president, became the first appointed governor of the Territory of Hawaii. Today under statehood we have chosen by popular vote our first elected governor, William F. Quinn, whose office is in the Iolani Palace, which was built in 1882 by King Kalakaua.

Since our 104th Annual Meeting will be the first under statehood, we are planning an exceptional program of scientific and social events, and we hope your members will be able to attend and help us celebrate this occasion.

Yours very truly,
Toru Nishigaya, M.D.
President, Hawaii Medical Association

GEORGE WILLIAM CRESWELL, B.A., M.D.

(1893–1959)

Dr. George W. Creswell, well known in Washington as a specialist in the treatment of venereal diseases, died, November 1, 1959, at his home, 1630 Jonquil Street, N.W., after a long illness. Until illness forced him to retire from practice in 1957 his offices were at 1630 R Street, N.W.

Dr. Creswell was born in Elkton, Md., October 3, 1893, to William and Mary Taylor Creswell. After attending the schools in Cecil County, he enrolled at George Washington University, receiving the degree, Bachelor of Arts, in 1922 and his degree in medicine in 1925. He interned the following year at the University Hospital.

In 1929 he was appointed to the staff of his alma mater as Associate in Dermatology and Syphilology. At the time of his retirement he was Assistant Clinical Professor of Dermatology and Syphilology. For 20 years he was secretary of the medical staff of George Washington University Hospital. He had also served as special consultant to the United States Public Health Service and as Chief of Medical Service at the Southwest Medical Center.

During World War II he served in the Navy with the rank of Lieutenant Commander. He received the Selective Service Medal for his work on the Examining Board.

Dr. Creswell contributed many articles, both as author and co-author, to the literature in the field of syphilology. He was Chairman of the Subcommittee on Venereal Diseases of the Medical Society of the District of Columbia for 3 years. He also founded and was first President of the Syphilis Journal Club of Washington, which is no longer in existence.

Dr. Creswell was elected to Active membership in the District Medical Society in 1927. He was a member of the American Medical Association, the American Association for the Advancement of Science, the Clinical Club of Washington, and the International Medical Club. For 10 years he was Treasurer of the Social Hygiene Society of D. C. He was also a member of the Washington Centennial Masonic Lodge, the Congressional Country Club, the Cosmos Club, and Kappa Sigma, Phi Chi and Sigma Xi fraternities.

Surviving him are his wife, Mrs. Gertrude Cook Creswell, and 4 children, Robert W., Maryland K., and George, all of the home address, and Richard N. Creswell, of 718 North Belgrade Court, Silver Spring, Md.

WILLIAM DUVALL CLAUDY, B.A., M.D.

(1913–1959)

Dr. William D. Claudy, an Active member of the Medical Society of the District of Columbia, died in his sleep, October 6, 1959, at his home, 2537 North Lexington Street, Arlington, Va. Called "a fireman's friend," he was a member of the District Board of Police and Fire Surgeons and had won many commendations for his rescue work at disaster scenes in Washington and vicinity.

Dr. Claudy was a native Washingtonian, born, November 16, 1913, to Carl H. and Clara Fitch Claudy. He received his early education at the Hubbard and John Eaton public schools in Washington and graduated from Western High School.

From George Washington University he received his B.A. degree in 1935 and his medical degree in 1938. He interned the following year at George Washington University Hospital and was resident physician at Gallinger Municipal (now D. C. General) from 1939 to 1940 and from 1941 to 1942. The intervening year he was resident physician at Doctors Hospital. He had served on the executive and teaching staffs of the latter since 1942.

Dr. Claudy served as Major in the Medical Corps of the United States Air Force from 1953 to 1955, participating in the Korean War and the German Occupation.

A specialist in internal medicine, he was appointed to an interim position on the Board of Police and Fire Surgeons during World War II, and in 1949 was given a permanent appointment by the D.C. Board of Commissioners. He served continuously on the Board since his original appointment in 1944 with the exception of his service in the Air Force.

Dr. Claudy was elected to Active membership in the Medical Society of the District of Columbia in 1942. He was also a member of the American Medical Association and the George Washington University Medical Society. His fraternal affiliations included Theta Delta Chi and Phi Chi. He contributed a number of articles to the MEDICAL ANNALS and to other scientific journals.

Surviving him are his wife, Mrs. Geraldine McDormand Claudy; a young son, Kevin; his mother, Mrs. Claudy, Sr.; and a brother, Carl H. Claudy, Jr., all of Washington.

JACOB W. BIRD, M.D.

(1885–1959)

Dr. Jacob W. Bird, founder of Montgomery County General Hospital, who was honored for his 50 years' service to the County by a large community gathering as recently as July, was killed in an automobile accident, October 25, 1959, near Huntsville, Alabama. His wife, Mrs. Jean Skinner Bird, died in the same accident.

Dr. Bird was born to J. Irving and Elizabeth Brayshaw Bird in West River, Md., October 3, 1885. He received his early education in the county schools and attended St. John's College for 2 years. He received his degree in medicine from the University of Maryland in 1907 and was intern and resident physician at the University Hospital the following 2 years.

He was founder and Chief of Staff of Montgomery County General Hospital, which opened in 1920. He was President of the Montgomery County Medical Society in 1917 and again in 1948; during the intervening years, 1918 to 1947, he was Secretary of the Society. He was President of the Medical and Chirurgical Faculty of the State of Maryland in 1943–44. He was a member of the Southern Medical Association, an Associate member of the Medical Society of D. C. from 1922 until his death, and a member of the Washington Academy of Medicine and the Lister Medical Society of Baltimore. His fraternal societies included Nu Sigma Nu and Sigma Alpha Epsilon.

Dr. Bird's community activities were numerous and covered an expanse of many years. He was President of the Maryland Children's Aid Society for 13 years, President of the Social Service League of Montgomery County for 26 years, and Chairman of the Juvenile Court Commission of Montgomery County for 4 years. He was also Past President of the Rockville Rotary Club and Past President of the Montgomery Farmers Club of Sandy Spring, and a member of the Manor Country Club.

His son, J. Wheeler Bird, Jr., of Huntsville, Ala., survives him.

EUGENE C. deSAVITSCH, B.A., M.D.

(1903–1959)

Dr. Eugene C. deSavitsch, who formerly practiced in Washington, died, October 15, 1959, in London, where he had been living for the last few years.

Dr. deSavitsch was born in Petrograd, Russia, August 19, 1903, to Constantine and Eugenie deSavitsch. He received his early academic training at St. Joseph's College, Yokohama, Japan. He graduated from the University of Denver, receiving his B.A. degree in 1931, and from the University of Chicago School of Medicine in 1934. He interned at Billings Hospital the following year. Under a Belgian-American Educational Foundation Fellowship he studied surgery and practiced in Paris, Brussels, Antwerp, Vienna, and the Belgian Congo.

He came to Washington from Paris, where he had been an associate in surgery at Laennec Hospital. While in practice in Washington, he had surgical privileges at most of the hospitals. For a number of years he was Clinical Instructor in Surgery at Georgetown University School of Medicine.

He was an Active member of the Medical Society of the District of Columbia from 1939 until he resigned in 1956. He was a Fellow of the International College of Surgeons and a member of the American Medical Association, the American Society for Experimental Pathology, the American Society for Experimental Biology and Medicine, the American Trudeau Society, the International Medical Club, the Clinical Club of Washington, the Metropolitan Club, and other organizations.

He wrote extensively, contributing numerous articles to the literature in the field of tuberculosis. His autobiography, "In Search of Complications," was published by Simon and Schuster in 1940.

Surviving him is his wife, Mrs. Belle L. deSavitsch, residing at their home, 24 Old Court Mansions, Kensington, W.8, London.

KENNETH W. CHAPMAN, M.D., F.A.C.P.

(1911–1959)

Dr. Kenneth W. Chapman, Associate Director of the Clinical Center, National Institutes of Health, died suddenly, September 18, 1959.

Dr. Chapman, a native of Massachusetts, born in 1911, was a graduate of the University of Massachusetts. He received his medical degree from Yale University in 1938 and joined the Public Health Service as a commissioned officer the following year. He had been on the Clinical Center staff since 1957, where he supervised the patient care departments of this combined clinical and laboratory research facility.

Dr. Chapman was internationally known as an expert in the treatment of narcotics addicts. He was Chief of the Public Health Service Narcotics Hospital in Lexington from 1952 to 1954. This post followed an assignment in Washington, D.C. (1950–1952) as Assistant Chief of the Division of Hospitals, PHS.

Dr. Chapman was a Fellow of the American College of Physicians and the American Psychiatric Association, a diplomate of the American Board of Psychiatry, and a member of the American Medical Association.

He is survived by his wife, Mrs. Joan Wilcox Chapman, and two sons, Karl and Richard, of the home address, 5910 Kingswood Road, Bethesda, Md.; his mother, Mrs. Ernest G. Chapman, of Springfield, Mass.; and a sister, Mrs. James Clark, of Agawam, Mass.

Ulcers of Stomach and Duodenum in Infants—Cosimano et al

(*Continued from page 17*)

No clear-cut etiologic factor is found in most cases other than in the Cushing or Curling types of ulcers.

A high index of suspicion, diagnostic X-ray examination, and early, adequate surgical procedure coupled with meticulous pre- and postoperative care seem to offer the greatest chance for success.

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Actinomycosis of Pericardium—Pereira

(*Continued from page 33*)

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William Thornton—Paulson and Paulson

(*Continued from page 36*)

practice because of his disappointment with the outrageously small fees he received in Philadelphia. Thornton was reasonably secure financially without the necessity for work. The medical dogma of 1800 was probably unattractive to him. For example, he disapproved of bleeding (except for apoplexy, etc.) and of the violent purgation still in vogue. His inclinations were actually more scientific than medical, and he probably studied medicine because it was the only scientific training available.

On the other hand, perhaps William Thornton was interested in medicine but other things were more stimulating. Maybe Dr. Thornton was just one among many who were busy away from home and profession when the United States of America was the youngest and "freest nation on earth."

N. B. The authors wish to thank Dr. Talmage Peele and Dr. Thomas R. Forbes for their helpful advice, and to express their appreciation for the courteous assistance of Mr. Ernest A. Norwig, of the United States Patent Office, and Mr. P. B. Cott, of the National Gallery of Art.

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EXTERNAL PRECORDIAL SCANNING

Preliminary Report of a Simplified Method for the Detection of Left-to-right Circulatory Shunts

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IN THE MAJORITY of patients with congenital heart disease cardiac malformations are present which shunt blood from the left to the right side of the heart. The most common malformations are patent ductus arteriosus, ventricular septal defect, and atrial septal defect. Less commonly, aorticopulmonary window, ruptured aneurysm of the sinus of Valsalva, coronary arteriovenous fistula and various forms of common atrioventricular canal and of anomalous pulmonary venous return result in left-to-right shunting of blood. All of these lesions are now amenable to complete surgical correction and it is incumbent on the physician to detect their presence before irreversible cardiac and pulmonary changes increase the risk and diminish the benefits which result from operation.

The history, physical examination, roentgenogram and electrocardiogram generally serve to alert the physician to the presence of a congenital malformation of the heart and often also strongly suggest the type of defect present. However, definitive diagnosis requires more complex studies, usually involving right or left heart catheterization, selective angiocardiography, or retrograde aortography. These technics permit the application of a wide variety of recently developed methods for the precise detection, localization and quantification of left-to-right circulatory shunts.[1, 2, 3] The necessity for hospitalizing patients in whom these studies are to be performed, as well as the slight risk, the discomfort and the expense involved, has led to efforts directed toward the development of more simplified technics for the detection of such shunts.

In 1949 Prinzmetal and colleagues[4] published a recording of precordial radioactivity following the intravenous injection of radioactive sodium (Na^{24}) into a patient with a patent ductus arteriosus. More recently Goldring and coworkers,[5] Huff and collaborators,[6] and Turner, Salazar and Gorlin[7] have presented preliminary evidence that the curves obtained by precordial scanning are modified by the presence of circulatory shunts and by congestive heart failure.

The present preliminary report describes the results of the application of a precordial radioisotope scanning technic to a study of 50 patients at the National Heart Institute, in all of whom the presence or absence of a left-to-right shunt was subsequently proved at cardiac catheterization or at operation.

METHOD

The 50 patients studied ranged from 2 to 63 years. In every instance the presence or absence of a left-to-right shunt was determined by application of the nitrous oxide[8] or Kr^{85} test[3] at the time of right heart catheterization. In most patients indicator-dilution curves with either right or left heart injection, utilizing technics described previously,[2] further confirmed the existence or absence of the shunt. The patients were divided into 3 groups:

Group 1. This group consisted of 22 patients with congenital heart disease and proved left-to-right shunts who ranged in age from 2 to 52 years and averaged 18.6 years. Although some of these patients had diminished cardiac reserve, none were in overt failure.

Group 2. This group consisted of 23 patients ranging in age from 6 to 63 years and averaging 23.8 years. None of these patients had left-to-right cardiac shunts at cardiac catheterization and none were in heart failure. The majority were patients with heart murmurs who were suspected of having left-to-right shunts on clinical examination or who had compensated rheumatic heart disease.

Group 3. This group consisted of 5 patients, ranging in age from 27 to 52 years who had rheumatic heart disease and were in overt congestive heart failure.

Radioactive iodine (I^{131}) incorporated into Diodrast* was rapidly injected into an antecubital vein following puncture with a no. 18 gauge needle. Twenty to 100 μc. of the isotope in a volume of less than 1 ml. was injected and rapidly flushed with 10 ml. of saline. A scintillation counter with a 3/4 inch diameter sodium iodide crystal† was placed vertically over the midsternal line at the fourth intercostal space. In order to limit the detection of radioactivity from areas other than those directly beneath the probe, the latter was shielded with a 1 inch thick collar of lead, which was extended for 3 inches below the crystal. In conjunction with this scintillation detector a count-rate meter‡ was employed, and the output of the latter was

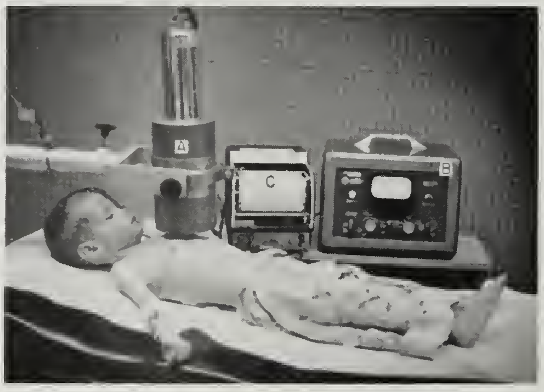

FIG. 1. Photograph of equipment employed in precordial scanning. A. Scintillation probe with heavy lead collar. B. Count-rate meter. C. Rectilinear recorder.

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* Obtained from Abbott Laboratories, North Chicago, Illinois.

† Model DS-1, Nuclear-Chicago Corp.

‡ Model 1615-B, Nuclear-Chicago Corp.

recorded on a direct-writing linear recorder* (figure 1).

The resulting curves were analyzed in the following manner: The build-up time was first determined. This was represented by the time interval between the appearance of the isotope in the heart (i.e., the first upward deflection of the curve) and the time of the peak concentration of isotope in the left ventricle. The latter was recognized as either the second of 2 distinct peaks or as the termination of 1 broad peak. The concentration of radioactivity was then measured at this point (activity A) and again after a time interval equivalent to the build-up time (activity B) (figure 2). The ratio of activity B to activity A was then determined and expressed as a percentage.

RESULTS

The precordial curves in patients without left-to-right shunts or congestive heart failure (group 2) were characterized by a rapid ascent and a double peak. The first peak represented the isotope in the right ventricle and the second that in the left ventricle. The descending limb was always more gradual than the ascending limb; the decline was smooth and was interrupted relatively late by normally recirculating isotope (figure 2). In these patients the B/A ratio ranged from 38 to 57 per cent and averaged 47 per cent. In the patients with left-to-right shunts (group 1) the 2 peaks were frequently fused into 1 peak and the downslope was more gradual than in the patients in group 2 (figure 3). In many curves the early portion of the downslope was distinctly interrupted by abnormally recirculating isotope. With 1 exception, in these patients with proved left-to-right shunts, the B/A ratio ranged from 60 to 87 per cent and averaged 74.2 per cent (figure 4). In one patient the B/A ratio was definitely in the non-shunt range (40 per cent). It was demonstrated in this patient that the lesion was an anomalous pulmonary vein and a sinus venosus atrial septal defect with a small bi-directional shunt. The shunt could not, however, be detected by the Kr^{85} test.

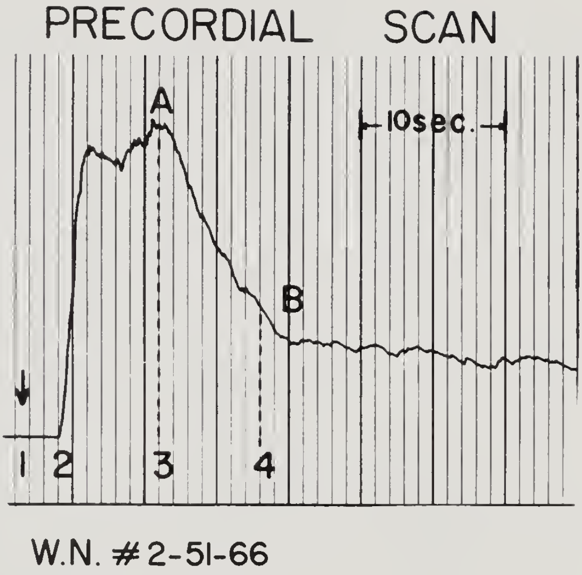

FIG. 2. Precordial radioisotope curve obtained from a patient without heart disease. The vertical arrow represents the instant of injection. Time interval 1–2 represents the appearance time and 2–3 is the build-up time. Time interval 3–4 is equal to the build-up time, and the radioactivity at 4 (B) is related to the activity at 3 (A) in calculating the ratio B/A described in the text.

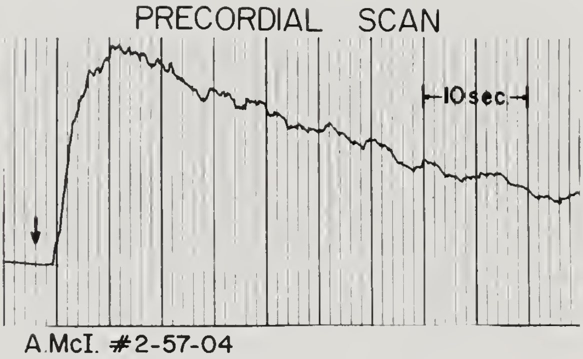

FIG. 3. Precordial scan obtained from a patient with an atrial septal defect subsequently repaired under direct vision with the aid of the extracorporeal circulation. The peaks of activity in the ventricles have been fused into a single peak and the descending limb is markedly prolonged.

In the patients with congestive heart failure (group 3) the ascending limbs were less steep

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* Recti-riter, Texas Instruments, Houston, Texas.

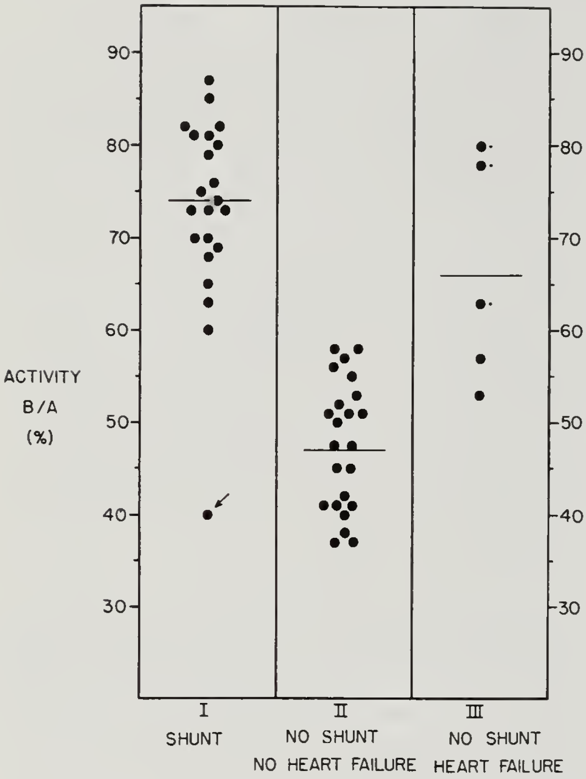

Fig. 4. Ratio of radioactivity B/A in 50 patients studied by precordial scanning. The oblique arrow in group 1 represents the patient with the extremely small left-to-right shunt described in the text. The starred points in group 3 represent the patients with marked valvular regurgitation and severe heart failure. The horizontal lines represent the average ratio in each group.

than those in patients in groups 1 and 2. In the 3 patients in this group with severe valvular regurgitation the curves descended very gradually and the B/A ratios ranged from 63 to 80 per cent (figure 5), values similar to those obtained in patients with left-to-right shunts. In the 2 patients with heart failure without clinically severe valvular regurgitation, the ratios were 53 and 57 per cent respectively in the range observed in patients without shunts.

Discussion

It is evident from the data presented that the precordial scanning technic employed is a reliable method for the detection of left-to-right circulatory shunts. It is of interest that the only patient in group 1 (shunt) in whom the calculated ratio (B/A) fell in the range observed in group 2 (no shunt, no failure) was a patient with a very small shunt not detectable by a very sensitive catheterization technic. Thus, with this exception, and in the absence of severe congestive heart failure and valvular regurgitation, the ratios observed in patients with and without shunts showed no overlap.

It was not surprising that in the patients with heart failure and regurgitation the downstroke was very gradual, since this represented the delayed clearance of isotope from the cardiac chambers which occurs under these conditions. This prolonged downstroke resulting in ratios of B/A in the range observed in group 1 does not, however, seriously impair the value of precordial scanning as a screening test in patients suspected of having congenital heart disease and left-to-right cardiac shunts, since the severe heart failure and valvular regurgitation may be easily recognized on clinical examination. It is apparent that the technic described does not serve to localize either the site of origin or of entry of a shunt, nor can it establish its magnitude. Cardiac catheterization is required for this as well as for providing measurements of intracardiac pressure.

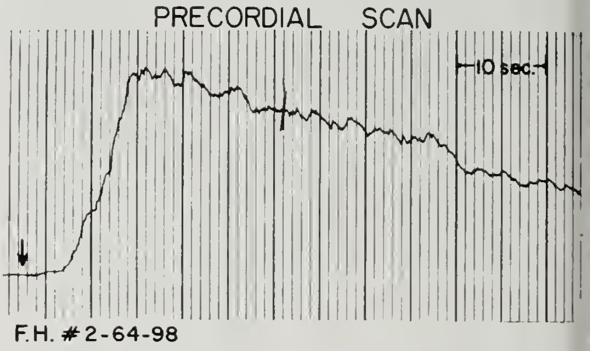

Fig. 5. Precordial scan obtained from a patient with rheumatic heart disease, mitral regurgitation and congestive heart failure. Both the ascending and descending limbs are strikingly prolonged.

Precordial scanning will find its greatest area of usefulness as a simple method for the study of that large number of patients with heart murmurs in whom the presence of a left-to-right shunt cannot be excluded on clinical examination. By objectively excluding a shunt the necessity for more complex studies such as cardiac catheterization would be obviated. On the other hand, if the presence of a shunt is suggested by the precordial scan, the necessity for performing further diagnostic tests would be clear. In particular, small interatrial septal defects which might, under other circumstances, remain undetected could be discovered and the patients offered surgical correction at a low risk. In addition, this technic should also prove of value in patients who have undergone surgical closure of their shunts. In such patients postoperative catheterizations may be avoided if the precordial scanning technic clearly indicates the absence of a shunt.

SUMMARY

Preliminary experiences with external precordial scanning for the detection of left-to-right circulatory shunts are described in 50 patients, in all of whom the presence or absence of a shunt was proved by cardiac catheterization. The technic consists of the intravenous injection of I^{131}-labeled Diodrast and the recording of the curve of precordial radioactivity by means of a well-shielded scintillation probe. In patients with shunts the presence of recirculating isotope in the heart prolongs the descending limb of the precordial curve, while in the absence of a shunt the descending limb falls more rapidly. The technic was found to be accurate, the only false positive tests occurring in patients with severe congestive heart failure and valvular regurgitation. Precordial scanning constitutes a simple reliable approach to the detection or exclusion of the presence of left-to-right shunts in patients with suspicious heart murmurs. Its proper application should obviate unnecessary cardiac catheterizations in this large group of patients.

ACKNOWLEDGMENT: The advice of Drs. R. Gorlin and J. Turner in setting up this technic is gratefully acknowledged.

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TREATMENT OF FUNGOUS INFECTIONS OF THE SCALP WITH GRISEOFULVIN*

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TINEA CAPITIS, which is endemic to most urban areas and occasionally reaches epidemic proportions, taxes the resources of any dermatologist who is responsible for the care of large numbers of school children. Topical ointments are rarely of value. Up to the present, roentgen-ray epilation has been the preferred method of therapy. Since the disease does not persist beyond puberty, innocuous local measures and the passage of time eventually produce relief but not before many of its victims have endured years of discomfort and disfigurement. An agent which would eradicate the fungus very rapidly and which could be administered orally with almost complete safety was long desired but only recently attained.

Griseofulvin was isolated in 1939 by Oxford and his group,[1] who obtained it from *Penicillium griseofulvum*. Eight years later Brian[2] produced a substance which he called the "curling factor" from other strains of Penicillium; this agent, added to fungi, caused the hyphae to develop in abnormal curled strands. Shortly thereafter Grove and McGowan[3] showed that Oxford's griseofulvin and Brian's "curling factor" were identical. The chemical structure of this agent was solved by Grove and his associates[4] in 1951.

Griseofulvin was used only to eradicate fungi in plants until Gentles[5] in 1958 found that it was effective orally against induced *Microsporum canis* and *Trichophyton mentagrophytes* infections in guinea pigs. It was possible to recover fungistatic levels of griseofulvin from the hair of treated animals.[6] Griseofulvin was first used in man by Riehl,[7] who reported rapid involution of dermatomycoses in 15 patients who had received the drug orally. Williams and his colleagues[8] in England and Blank and Roth[9] in the United States soon confirmed the efficacy of griseofulvin among larger numbers of patients with tineas of the skin, nails, or hair. In vitro studies by the latter group of investigators showed that species of Microsporum, Trichophyton, and Epidermophyton which attack the human are extremely sensitive to griseofulvin. However, there is apparently no fungistatic activity against Candida or the organisms responsible for systemic mycoses. These pioneer clinical investigators of griseofulvin commented on its extremely low toxicity at the usual dosage of 1 or 2 Gm. daily. Subsequent experience, which is now quite extensive, continued to yield extremely gratifying results. My experience with this drug is reported below.

METHOD

Forty children with tinea capitis were treated with Fulvicin† (griseofulvin). The usual dosage was 1 250 mg.-tablet twice daily, but a few older children received 3 or 4 tablets daily for the first week. Children 3 years or younger usually received ½ tablet twice daily.

In each case the diagnosis of fungous infection had been confirmed by microscopic examination and, in the case of suspected *Microsporum audouini*, by the characteristic fluorescence under the Wood's light. The infecting organisms were identified in culture. Except for 5 patients with *Trichophyton tonsurans* and 2 with *Microsporum canis*, these children were infected with *M. audouini*.*

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* From the Department of Medicine (Dermatology), Georgetown University School of Medicine, and the Georgetown Medical Division of the District of Columbia General Hospital.

† Supplies of Fulvicin were provided by Dr. G. Kenneth Hawkins, Division of Clinical Research, Schering Corporation, Bloomfield, New Jersey.

TABLE 1

Continuous Therapy in M. audouini

Case Number	Age	Daily Dosage	Weeks of Therapy	Weeks to Major Improvement	Weeks to Cure
1	11	1000–500 mg.	8	4	6
2	8	500 mg.	4	Lost to series	
3	8	500 mg.	8	2	6
4	5	500 mg.	8	2	7
6	5½	500 mg.	9	5	6
7	3½	500 mg.	9	3	9
8	10	750–500 mg.	9	6	7
9	½	250 mg.	6	2	4
10	4	500 mg.	8	2	5
11	7	1000–500 mg.	9	6	8
12	13	750 mg.	6	2	5
13	9	500 mg.	11	4	8
14	5	750 mg.	5	3	5
15	7	500 mg.	8	4	5
16	4	500 mg.	11	4	11
17	6	500 mg.	11	4	11
18	5	500 mg.	6	3	7
24	4	500 mg.	8	4	9
25	6	500 mg.	4	2	4
26	2	250 mg.	4	2	2
27	7	750 mg.	4	2	4
29	1½	250 mg.	6	2	3
30	1	250 mg.	6	4	6
31	11	1000 mg.	6+	2	Therapy continues
MEAN AVERAGES	6	500 mg.	7 (23 cases)	3 (23 cases)	6 (22 cases)

Approximately 30 patients were treated in the outpatient clinics of the District of Columbia General Hospital, and the rest were seen in private dermatologic practice. There were many patients with long-standing involvement, including some with infections persisting for 2 years or longer.

The criteria for cure were failure of the hairs to fluoresce under the Wood's light (in *M. audouini* and *M. canis*), a sufficient growth of noninfected hair to cover the site of the original lesions completely, and repeated inability to culture the fungus from scrapings taken at the site of involvement. Dosage was continued until these requirements had been unequivocally fulfilled. In most cases there were 1 or more follow-up examinations.

RESULTS

Unfortunately, not all of the patients returned at the prescribed weekly intervals for evaluation and additional medication, and it rapidly became apparent that the progress of the recalcitrant patients was significantly slower than that of the coöperative majority.

The 23 patients with tinea capitis due to *M. audouini* who were properly treated were cured in an average of 6 weeks, and major improvement was evident during the third week (table 1). Four of the 9 children with *M. audouini* who were treated intermittently are not yet cured (December 15, 1959), and it required an average of 13 weeks to cure the other 5 (table 2).

TABLE 2

Interrupted Therapy in M. audouini

Case Number	Age	Daily Dosage	Weeks of Observation	Weeks of Actual Therapy	Weeks to Major Improvement	Weeks to Cure
5	8	500 mg.	26	8	10	26
19	6	500 mg.	21+	12	20	—
20	3	250 mg.	10+	8	10	—
21	10	500 mg.	10	8	6	10
22	7	500 mg.	11	8	6	11
23	2	500 mg.	10	8	10	10
28	5	500 mg.	10	6	6	10
32	7	500 mg.	4+	6?	2	—
33	9	500 mg.	4+	6?	2	—
MEAN AVERAGES	6	500 mg.	12+	8	8	13 (5 cases)

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* Mr. Joseph Stone, mycologic technician at the District of Columbia General Hospital, assisted with the laboratory procedures.

Similar results occurred in the children with *T. tonsurans* infections. Continuous therapy produced rapid cures (table 3), but interruptions prolonged cures even more than was the case in *M. audouini* infections (table 4). The 2 children with *M. canis* infections responded rapidly (table 5).

TABLE 3

Continuous Therapy in T. tonsurans

Case Number	Age	Daily Dosage	Weeks of Therapy	Weeks to Major Improvement	Weeks to Cure
34	2½	500 mg.	8	4	8
38	6½	500 mg.	6	3	4

COMMENT AND CONCLUSIONS

This experience, and that of other investigators,[9–16] indicates that tinea capitis caused by *M. audouini* can be cured in about 6 weeks if dosage is adequate and if therapy is not interrupted. The first negative cultures, which usually are obtained 1 or 2 weeks after fluorescence has disappeared,[12, 13] provide a reliable indication of complete cure.[11] Under microscopic examination, morphologic changes can be observed in the fungi as early as the second week of therapy.[13]

TABLE 4

Interrupted Therapy in T. tonsurans

Case Number	Age	Daily Dosage	Weeks of Observation	Weeks of Actual Therapy	Weeks to Major Improvement	Weeks to Cure
35	9½	500 mg.	19	8	13	19
36	10½	750-500 mg.	16	8	10	16
37	3½	500 mg.	15+	14	6	—

Fulvicin is also effective in tinea capitis caused by *M. canis* and *T. tonsurans*, although in the former the presence of follicular pustules apparently retards cure.[10] With *T. tonsurans* a somewhat longer period of time is required before cultures are negative.[13] Kirk and Ajello[11] found that patients in whom the infection had persisted for a comparatively long time and those who had relatively minor involvement were cured more rapidly than the average. Good ancillary hygiene also enhances cures.[11, 13] Rapid cures occur only when therapy is not interrupted. It took approximately twice as long to cure patients who were remiss in following the prescribed dosage schedule.

Although the factors of resistance and recurrence associated with Fulvicin are not yet fully known, in general those patients who have received adequate dosage of the drug for a sufficient length of time do not relapse.[12, 13] Some of my patients have been followed for as long as 4 months after cure. There has been no recurrence in any patient and no untoward long-term effects. Infants and very young children apparently tolerate the drug in dosages proportionate to age as well as older children and adults.

TABLE 5

Continuous Therapy in M. canis

Case Number	Age	Daily Dosage	Weeks of Therapy	Weeks to Major Improvement	Weeks to Cure
39	5	1000-500 mg.	9	2	8
40	8	750-500 mg.	6	3	6

Laboratory studies performed by most investigators[9–16] have shown no pathologic changes attributable to the drug, although transient clinical side-effects, chiefly headache, gastrointestinal distress and allergic dermatitis occur occasionally. A brief pyodermic reaction in 1 of our patients was the only side-effect observed. Hematologic studies revealed that a transient subclinical leukopenia occurred in a few children, but this disappeared spontaneously despite continued therapy.

(*Continued on page 127*)

TREATMENT OF ACNE VULGARIS WITH ESIDRIX-KCL*

Preliminary Report

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THE TREATMENT of acne vulgaris is at best a difficult problem. A multitude of drugs have been and are still being employed which give varying and inconsistent results, to the distress of both the patient and the treating physician.

While treating a group of female patients for premenstrual tension with Esidrix,* it was noted that acneiform lesions cleared during therapy. Following this observation a small pilot study was initiated with 18 patients suffering from acne vulgaris to determine if such lesions were susceptible to Esidrix-KCl.† The results achieved in the treatment of these patients suggest the possibility that this may be an effective form of treatment for acne vulgaris.

PATIENT SELECTION AND METHOD OF STUDY

Eighteen patients, 16 females and 2 males, ranging in age from 17 to 33 years, were selected for the pilot study. Each of the patients had suffered with severe facial acne for several years. In addition, some had lesions over the chest and back. The disease had not responded to any of the presently available forms of therapy. The 18 patients were divided into 3 groups of 6, each being observed at weekly intervals. For all 18, any previous therapy was discontinued. Dietary restrictions were maintained for the entire group.

The first group of 6 patients was instructed to continue to wash with Dial soap and to employ a bland lotion at night. This group was given Esidrix-KCl, 1 tablet 3 times daily.

The second group of 6 patients used the same bland lotion at night but were instructed to wash with a mild baby soap. They were given Esidrix-KCl, 1 tablet 4 times daily. This dosage was used to determine if an increased dosage would produce a more rapid response.

The third group of 6 patients used the same bland lotion and washed with the same mild baby soap as the second group but received Esidrix-KCl, 1 tablet 3 times daily.

RESULTS

A consistent, rapid clearing of acne lesions was observed in all 18 patients. Increasing the Esidrix-KCl from 3 tablets daily to 4 tablets daily apparently had no effect on the rapidity or degree of clearing of the acne lesions. At the end of 3 weeks each patient voluntarily remarked that no new lesions developed and further reported a marked improvement in appearance.

During the first 3 days of therapy a marked

(Continued on page 128)

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* Esidrix (hydrochlorothiazide), a product of Ciba Pharmaceutical Products, Inc., Summit, N. J.

† Esidrix-KCl (hydrochlorothiazide, 25 mg.; potassium chloride, 500 mg.), a product of Ciba Pharmaceutical Products, Inc., Summit, N. J.

DEMONSTRATION OF THE CORONARY ARTERIES IN MAN USING IMAGE AMPLIFICATION FLUOROSCOPY*

Preliminary Report

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CORONARY ARTERY calcifications have rarely been seen in the living subject during conventional cardiac fluoroscopy. Infrequently coronary artery calcification has been demonstrated on chest films but usually when severe calcification extends over a considerable length of the artery. Calcification of the coronary vessels is usually overlooked, or thought to be something else on most chest films. The incidence of calcification of the coronary arteries is probably high, especially in patients over 40 years of age. Pyke and Symons[1] showed coronary calcification in 38 of 72 consecutive hearts at autopsy. Blankenhorn and Stern[2] in an excellent study of adult human hearts which were radiographed postmortem found calcification in 61 of 76 hearts. In a study with spot roentgenograms Habbe and Wright[3] demonstrated calcification in 3 per cent of patients over 40 years of age. Jorgens,[4] employing cinefluorography with amplification, recently reported an incidence of 30 per cent of calcification of these vessels in a series of 803 patients. The coronary arteries may be visualized by coronary arteriography, but this method cannot be used routinely and certain risks are involved.

In recent years image amplification has been used to improve visualization during fluoroscopy and also to reduce the amount of radiation to the patient. This technic has resulted in the visualization of more minute structures. When sufficient calcification is present in the coronary arteries these vessels may now be seen in man. I saw my first calcification in these arteries shortly after it was my privilege to use image amplification about a year and a half ago (case 1). Recently a group of about 80 patients referred for gastrointestinal and other studies were fluoroscoped with particular reference to the coronary arteries, and in this series 10 patients were shown to have calcification in these vessels.

The patients have usually been fluoroscoped in the supine position because they had been prepared on the table for a colon study. The heart is observed in the anteroposterior position, and then the patient is rotated into the right anterior oblique and left oblique positions. The calcified coronary vessels are seen to move with each heart beat and always remain within the confines of the heart shadow in all positions. A somewhat peripheral location is taken by the right coronary vessel, particularly where the calcification extends over a considerable distance and is located distally. The left coronary artery and its branches extend in a slightly downward and oblique manner and always stay well within the substance of the cardiac shadow in all positions. The superior margin of the left ventricle can be delineated during fluoroscopy, and the left coronary vessel is observed in this region. In the left anterior oblique position calcification of the left coronary artery can be projected beyond the margin of the vertebrae of the spine, but it still maintains its downward and oblique course toward the left. It is believed that the anteroposterior, right anterior oblique and left anterior oblique positions will prove to be the optimum ones for visualization of the left vessels and the left anterior oblique view for the right coronary vessels. It has been my experience that the right coronary artery is the most difficult one to demonstrate because of the superimposition of the underlying vertebral column.

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* Read before the Hippocrates-Galen Medical Society in Washington, D. C., December 3, 1959.

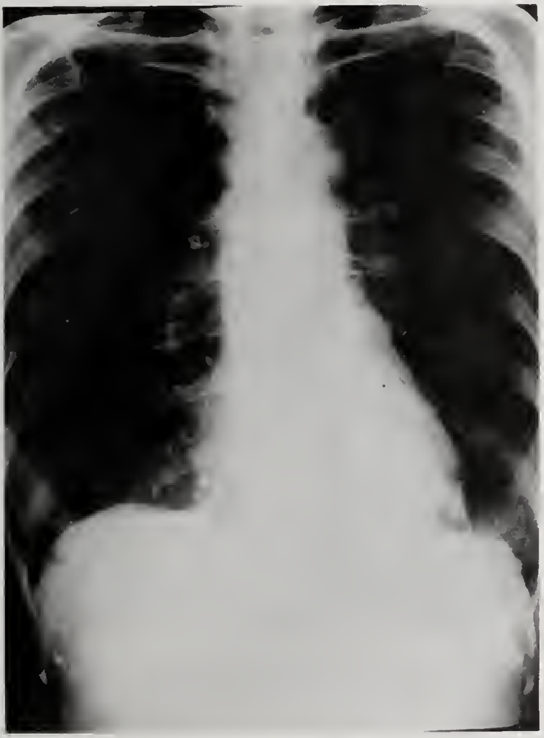

FIG. 1. Case 2. Calcified left coronary artery extends obliquely downward through left cardiac shadow and overlies left ninth posterior intercostal space.

It is to be emphasized that the calcified vessels are seen to move synchronously with each heart beat. They move in a fascinating downward and upward manner with systole and diastole of the cardiac chambers.

Spot films have been made in each instance to confirm the fluoroscopic findings. Because of heart motion it is sometimes difficult to obtain good films and, therefore, several spot films must be made. Short exposures of 1/30 to 1/40 second with 95 kv. have been used with good results. The fluoroscopic tube has an 0.3 mm. focal spot.

REPORT OF CASES

Case 1. A 70-year-old white woman was seen to have double calcification of the left coronary artery, 3.0 by 0.3 cm. in length. The heart was within normal limits, but there was mild tortuosity of the aorta with calcification. The blood pressure was 200/90 mm. Hg. The patient had been a mild diabetic of 14 months. There was a history of coronary heart disease of 8 years' duration with angina pectoris. There was an occasional premature ventricular contraction, and left ventricular strain was present. There was also a grade 3 systolic murmur.

Case 2. A 67-year-old white woman showed double and blotchy calcification of the left coronary artery measuring 5.0 by 0.3 cm. and also some calcification in the right coronary vessels (figure 1). The heart was within normal limits, but there was moderate tortuosity and calcification of the thoracic aorta. The blood pressure was 150/90 mm. Hg on the average. There was a history of paroxysmal tachycardia and a questionable history of angina.

Case 3. A 48-year-old white man revealed blocky calcification of the left coronary artery over a distance of 1.2 by 0.2 cm. (figure 2). The heart and aorta were normal. There had been a fluctuating blood pressure of 160/100 to 190/110 mm. Hg. Hypercholesterolemia was present.

FIG. 2. Case 3. Spot film showing blocky-like calcification of left coronary artery.

Case 4. A 59-year-old white woman showed marked double calcification in both the left and right coronary arteries (figure 3). The left artery measured 5.0 by 0.4 cm. There was definite left ventricular prominence and marked tortuosity, elongation, and calcification of the thoracic aorta. The patient was a diabetic, and there was marked calcification of all of her vessels.

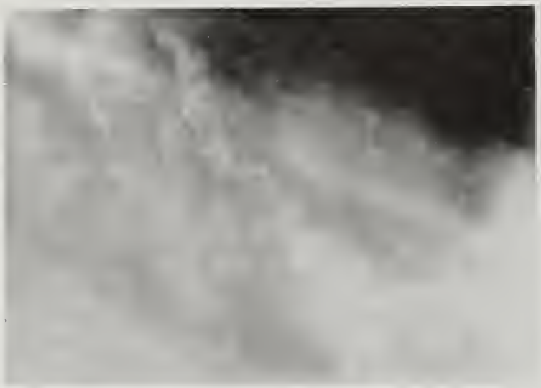

Fig. 3. Case 4. Spot film showing severe calcification of left coronary artery and its branches, anterior descending and circumflex branches. These appear as an inverted "Y."

Case 5. A 51-year-old white man showed double calcification of the left coronary artery measuring 4.0 by 0.4 cm. (figure 4). The heart was well within the limits of normal, but there was mild tortuosity of the aorta with calcification. There was a definite 2-year history of angina of effort which was unproved clinically.

Fig. 4. Case 5. Severe calcification of left coronary artery.

Case 6. A 53-year-old white woman showed punctate and blotchy calcification of the left coronary artery extending over a distance of 1.5 by 0.3 cm. The heart was well within normal limits of size, but there was calcification in the aortic arch. The blood pressure was 160/80 mm. Hg on the average.

Case 7. A 62-year-old white man showed incomplete calcification of the left coronary artery over a distance of 2.0 cm. Small flecks of calcification were seen in the right coronary vessels. The heart was well within the limits of normal in size, but there was calcification in the aortic arch. There had been changes in the Q and ST waves since 1946. The patient had had angina since 1957. The blood pressure was 160/96 mm. Hg on the average.

Case 8. A 46-year-old white woman showed incomplete calcification of the left coronary artery 4.0 cm. in length. The heart and aorta were normal. The blood pressure was 140/80 mm. Hg on the average. Myocardial infarction had occurred in 1941 and 1957 with T-wave changes. The patient had had angina pectoris since 1941.

Case 9. A 79-year-old white woman showed incomplete and double calcification in the left coronary artery measuring 2.5 cm. in length. The heart was within normal limits of size, but there was mild tortuosity and calcification of the aortic arch. The blood pressure ranged from 190/95 to 180/78.

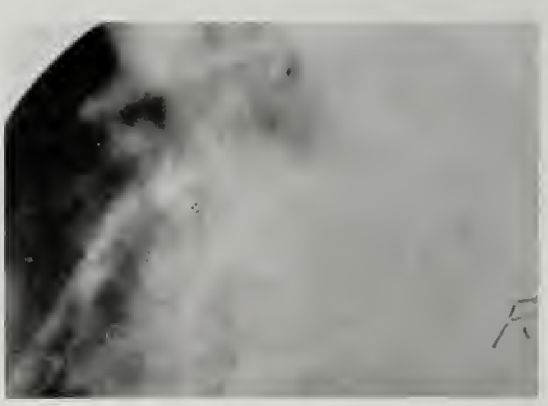

Fig. 5. Case 10. Spot film showing severe calcification of part of right coronary vessel.

Case 10. A 64-year-old white woman showed double calcification of both the left and right coronary arteries (figure 5). The left artery measured 3 by 0.4 cm. and the right, 5.0 by 0.4 cm. The heart was within the limits of normal in size, but there was calcification in the aortic arch. The blood pressure was 140/80 mm. Hg on the average.

Case 11. A 53-year-old white man showed blocky calcification of the left coronary artery measuring 1.3 by 0.4 cm. (figure 6). The heart was within normal limits of size, but there was calcification in the aorta. The patient had severe emphysema.

The age of the 11 patients ranged from 46 to 79 years. There were 4 males and 7 females. The left coronary artery was visualized in each instance, and in 4 patients there was associated calcification of the right vessel. The measurements of these vessels varied from 1.2 cm. by 0.2 cm. to 5.0 cm. by 0.4 cm. In 10 patients the cardiac silhouette was well within the limits of normal, but in 1 patient there was definite left ventricular prominence. Two patients were diabetic. One patient had hypercholesterolemia. In 9 patients there was calcification in the thoracic aorta.

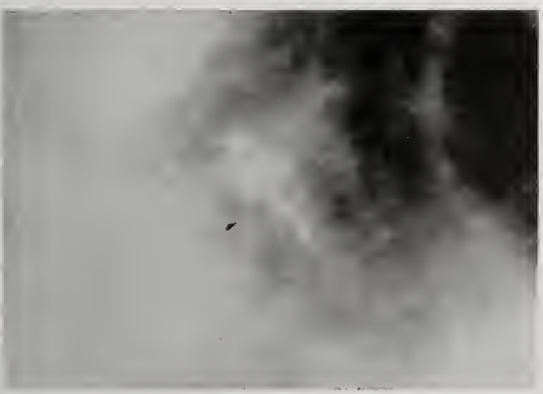

FIG. 6. Case 11. Spot film in right anterior oblique projection showing calcification in left coronary artery.

DIFFERENTIAL DIAGNOSIS

Calcification in the coronary arteries must be differentiated from calcification in the heart valves, the annulus fibrosus, the aorta, calcified nodes, calcium deposit in the lungs, calcified costal cartilages, and the bony structures of the thorax. Fluoroscopy helps in differentiating these structures.

DISCUSSION

The present series is too small to be of real statistical importance. It is to be noted that 14 patients were below the age of 40. Of the other 66 patients above 40 (excluding case 1 from the series) calcification was present in 15 per cent. Jorgens[4] in a recent paper read before the Radiological Society of North America reported on a series of 803 patients in which cinefluorography with amplification was used, and he found an incidence of 30 per cent of calcification of the coronary vessels. He stated that this is the best method for visualizing the vessels. Jorgens' method is expensive and when one lacks the cine arrangement the direct visualization employing the image amplifier is second best. The patients in this group were fluoroscoped with the image amplifier and with the conventional fluoroscope. Knowing that the patients had calcification in the arteries, I was unable to detect these calcifications by the conventional method. Thus, in the past, poor visualization has been a major factor in not recognizing the calcifications. Other factors, of course, have to do with the size of the patient and interference from structures of the chest, such as the ribs, vertebrae and sternum. It is stated that the most common coronary calcification is either 1, 2 or 3 mm. in length and is 1 of a group of 2 to 4 which lie in the artery close to the root of the aorta.[2] It is this type of calcification which probably is the most important and on which further interest must be concentrated.

Further clinical correlation with the radiographic findings must be made to determine the real significance of calcification of these vessels. Certainly in patients in whom the history and electrocardiographic findings are questionable, the demonstration of coronary atherosclerosis should be of value in the clinical diagnosis of heart disease. It is postulated that the findings will probably be of great importance in the prognosis and care of patients with demonstrable calcification. Perhaps preventive measures may be found and also, perhaps, a good surgical technic may be evolved in the treatment of the disease. It is certainly the responsibility of the radiologist to report such calcification when it is demonstrated.

SUMMARY

Eleven cases have been presented showing calcification in the coronary arteries, all of which were discovered on fluoroscopy using image amplification. The series is too small to be of real statistical value. Further investigation and correlation with clinical findings must be done.

(*Continued on page 128*)

RELAXIN IN PULMONARY FIBROSIS*

Preliminary Report

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PULMONARY FIBROSIS, regardless of etiologic factor, is a frequent cause of chronic disability. Important gains in the management of this problem have been achieved through preventive measures, such as prompt and adequate treatment of lung infections and better understanding of the etiologic factors. Despite the aforementioned gains, therapeutic endeavors in well-established pulmonary fibrosis continue to leave much to be desired.

We are currently carrying a large number of patients in our clinic with pulmonary fibrosis resulting from long-standing Boeck's sarcoidosis. In our studies of this group of patients, we have categorized the various types of cavitary lesions and have classified the physiologic abnormalities as obtained by pulmonary function studies.[1, 2] Because of our interest in this disease entity, the search for a therapeutic modality capable of reverting the fibrotic changes in the lung parenchyma became increasingly important to us.

Adrenocorticosteroids have been widely used in Boeck's sarcoidosis and other conditions producing fibrotic changes in the lungs such as the Hamman-Rich syndrome.[3, 4] In pulmonary sarcoidosis it can be stated that the results of steroid therapy are quite gratifying in the early granulomatous phase if the drugs are continued for an adequate length of time. On the other hand, the therapeutic results in Hamman-Rich syndrome are not always rewarding.[4] Speaking generally, however, it can be said that once fibrotic changes have occurred corticosteroids do not have a significant effect in altering the disease.

On the basis of experimental evidence of its action on fibrous connective tissue, relaxin has been tried recently in scleroderma with favorable results.[5, 6, 7] This has prompted us to use this drug in 2 of our patients with pulmonary fibrosis. The efficacy of the drug was monitored by pre- and post-treatment pulmonary function studies. In our search of the literature we did not notice any previous trial of relaxin in pulmonary fibrosis.

REPORT OF CASES

Case 1 (A. T.). A 75-year-old retired farmer and oyster fisherman was admitted to the hospital on May 11, 1959. He had been followed in our clinic for approximately 5 years with a diagnosis of pulmonary fibrosis of undetermined origin. Previous diagnostic procedures included bronchoscopy, scalene node biopsy, liver and gastrocnemius muscle biopsy, cultures, and a host of radiographic studies (figure 1). P.P.D. and histoplasmin skin tests were both positive.

On admission the blood pressure was 180/110 mm. Hg

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and the pulse rate 84, and there were grade 2 fundoscopic hypertensive changes. The lungs were essentially negative. After 2 weeks of priming with oral estrogens (Premarin 1.25 mg. daily) the patient was given daily injections of 20 mg. of relaxin for the next 2 weeks (with estrogen continued at intervals).

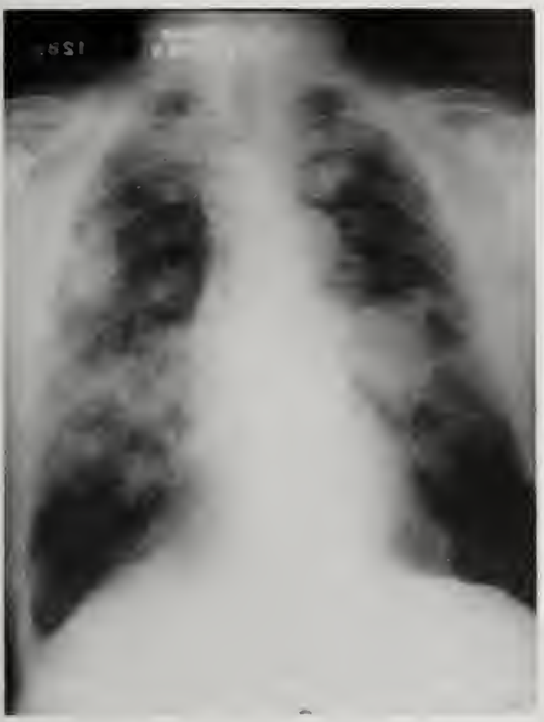

FIG. 1. Case 1. Bilateral dense fibrotic infiltrates. These have not changed during clinic follow-up. Relaxin therapy likewise did not alter the appearance of these infiltrates.

Pulmonary function studies revealed the following results:

	Pre-treatment	Post-treatment
Maximum breathing capacity	60% of predicted	63% of predicted
Vital capacity	79% of predicted	67% of predicted
Residual capacity	2,627 ml.	2,637 ml.

Pre-treatment arterial blood gas analysis showed the following:

	O_2 % Saturation
Basal	95
After exercise	96
After breathing 100% O_2	102

This study was not repeated after treatment as the values were within normal limits.

Case 2 (E. A.). A 47-year-old housewife had been followed in our clinic since April, 1956 with a diagnosis of Boeck's sarcoidosis. When first seen, her complaints included moderate exertional dyspnea and pains in both eyes.

Positive physical findings were limited to enlarged and tender parotid glands, hepatomegaly and fibromyomata uteri. The lungs were clear to percussion and auscultation, and examination of the heart, including venous pressure and circulation time, was not unusual. X-ray films of the chest were compatible with pulmonary Boeck's sarcoidosis (figure 2).

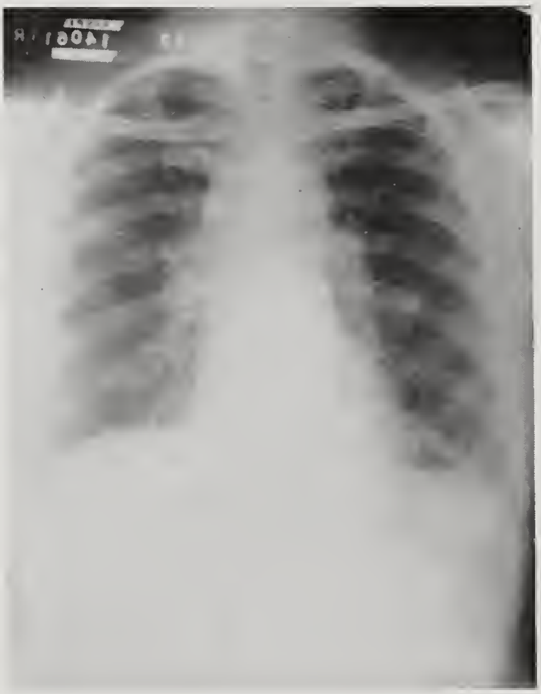

FIG. 2. Case 2. Bilateral strandlike fibrotic infiltrates. These have not changed in recent months. Relaxin treatment did not effect any change in these infiltrates.

During the intervening 3-year period this patient was treated on 3 occasions for several months with steroid therapy and isoniazid therapy (P.P.D. positive) because of clinical and radiographic evidence of progression of the pulmonary disease, with resultant partial improvement. In May, 1959 she was placed on relaxin therapy in a similar manner to case 1 on an outpatient basis.

Pulmonary function studies revealed the following results:

	Pre-treatment	Post-treatment
Maximum breathing capacity	68%	67%
Vital capacity	73%	68%
Residual capacity	2,142 ml.	1,677 ml.

Arterial blood gas analysis showed the following:

	Pre-treatment (O_2 % saturation)	Post-treatment (O_2 % saturation)
Basal	99	—
After exercise	75	89
After breathing 100% O_2	96	104

DISCUSSION

In 1926 Hisaw[8] produced significant relaxation of the pelvic joints of normal virgin guinea pigs by injecting them with serum from pregnant rabbits. Thus, he is credited with the discovery of relaxin as a separate ovarian hormone. Subsequent work in collaboration with Fevold and others[9] led to the documentation of methods of extraction and concentration of this relaxative substance for which they proposed the name "relaxin." Moreover, Hisaw established the need for estrogen priming to render this new hormone effective.

Relaxin is a nonsteroid hormone of a protein or polypeptide nature and is water-soluble and highly stable. Commercially, it is obtained from pregnant sows' ovaries.[7, 10] Experimental data have indicated that the hormone produces to some extent a depolymerization of ground substance with dissolution of collagen fibers.[7, 10] This is the basis of its use in several obstetrical problems and some of the connective tissue disorders.[7, 10, 11]

Both of our patients claimed subjective improvement following relaxin therapy. But objective analysis of their pre- and post-treatment findings failed to show any improvement in patient 1 (A. T.). However, patient 2 (E. A.) showed a definite improvement in her post-exercise arterial oxygen unsaturation, a rise from 75 per cent to 89 per cent. The pulmonary functional impairment of the 2 patients was somewhat different. Both of them had a restrictive pneumonopathy. However, patient E. A. had a diffusion defect also, as evidenced by arterial oxygen unsaturation upon exercise. This finding has tempted us to think that relaxin may have a more significant efficacy in diffusion defect causing alveolar capillary membrane fibrosis, as compared to restricting fibrosis. The alveolar capillary membrane fibrosis being a microscopic one, we can visualize histopathologic improvement within a shorter period of treatment, with better diffusion.

From this limited study we think that further investigation should be made to evaluate relaxin as a therapeutic modality in the treatment of pulmonary fibrosis, particularly of the alveolar capillary membrane block variety.

SUMMARY

Recent trials of relaxin in various fibroses have been reviewed. Two patients with pulmonary fibrosis were treated with relaxin. One patient showed improvement in her diffusion defect after treatment. Further evaluation of this therapeutic modality for pulmonary fibrosis is suggested, particularly in patients with alveolar capillary block.

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COMPENSABILITY AS RELATED TO CORONARY HEART DISEASE*

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CLAIMS for compensation for all sorts of accidents and diseases causing loss of time from work, partial or total disability, aggravation or acceleration of disease, or death, allegedly due to occupation, are becoming more numerous. Many of these claims are justifiable, some are not. Most of the justifiable claims concern accidents. Most of the unjustifiable ones concern causation, aggravation or acceleration of disease. In this category there is no more controversial subject than that of heart disease, and particularly coronary atherosclerotic heart disease. Space will permit discussion of this form of heart disease only.

Claims for compensation in reference to coronary heart disease concern aggravation or acceleration from stress of occupation, physical or emotional, precipitation of myocardial infarct or death by a physical or emotional stressful episode, or the production of an infarct or death by an injury to the heart, either by a blow on the chest or a penetrating wound.

As to the question of the effect of type of occupation there are two schools of thought. Only more recent investigations will be mentioned. The problem is whether certain types of occupation are etiologically related to coronary atherosclerosis or accelerate its course. The survey of Morris et al[1] has been construed to indicate that men in physically active jobs have less coronary heart disease than those doing sedentary work. Gertler and White[2] came to the conclusion that the disease is more likely to occur in managerial and executive positions. On the other hand, Gofman,[3] from his correlation of the atherogenic index and occupation, did not find any suggestion that positions of responsibility are characterized by features that tend to elevate blood lipid levels. Among a group of 1,883 men examined, 62 in supervisory, managerial and coördinating positions had a mean atherogenic index of 68.6 units, contrasted with 69.1 for the whole group. Twenty-nine occupational categories were represented among the 1,883 men working in one industry. The atherogenic indices (adjusted to 35 years of age) ranged from 79.6 down to 55.2 in the various categories. From the various types of work done, it does not seem reasonable to attribute the differences in the atherogenic indices to the differences in occupations. Gofman himself states, "No acceptable evidence has yet been presented to suggest an effect of stress (i.e., occupational) upon serum lipoproteins or serum cholesterol levels in man that cannot be as well, or better explained by the solidly-established effects of dietary alterations upon such blood lipids."

Although it is still uncertain that type of occupation in itself is a factor in accelerating atherosclerosis or aggravating coronary heart disease, emotional stress may possibly do so, although the evidence and wherefore are not conclusive. Emotional stress may occur in any occupation intermittently or in some instances persistently, but most emotional stress stems from within the person himself. White[4] has expressed doubt that stress and strain play a significant role in the genesis of coronary heart disease, assigning major etiologic significance to deranged lipid metabolism. Russian observers,[5] however, while admitting that cholesterol is the prime culprit in lipid infiltration of the arterial intima, believe that lipid-cholesterol metabolism is essentially disturbed by nervous or endocrine dysfunctions. A large scale survey of executives by the Life Extension Foundation, Inc. and Life Extension Examiners, with replies from some 6,000 persons, led to the conclusion that "tension is clearly identified with the personality of the individual executive and stems from within the man rather than from the outer forces of his environment." In other words, an important question is whether the job is too much for the man or the man makes too much of the job because of his aggressive, ambitious or tense temperament. People react differently under similar circumstances.

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* Presented, September 28, 1959, at the Postgraduate Course of the American College of Physicians, given at Georgetown University School of Medicine.

Russek and Zohman[6] analyzed the significance of heredity, diet and occupational stress in a group of 100 adults between the ages of 25 and 40 years with coronary heart disease and a group of 100 "normal" control subjects. They stated that 91 per cent of the patients had been under unusual occupational stress for varying periods prior to the onset of symptoms as contrasted to similar stress in only 20 per cent of the controls. However, there were other differences between the 2 groups—heredity (1.7 to 1), dietary fat excess (2.7 to 1), obesity (1.3 to 1) and excessive smoking (2 to 1), which the authors tended to minimize. An interesting observation was that amount of exercise in the 2 groups was rated the same. The authors conclude, "Re-orientation is needed in epidemiologic studies which ignore the profound effect of socioeconomic stress on bodily function and human behavior."

The difficulties in resolving the question of the relationship of prolonged emotional stress to coronary heart disease are great. But even if one could state positively that stress influences the course of the disease, it would hardly be fair that the employer should be held responsible for the consequences resulting from the personality of an employe which causes him to work under unnecessary tension that produces continuous stress. An employer should not be expected to exert constant control over an employee's work habits or off-work activities provided the work is properly performed. On the other hand, a particular job may be too rigorous unto itself, involving long hours of work, deadlines, knotty problems, or frustrations that might tax the endurance and patience of even the best adjusted of men. As Fisch[7] so aptly puts it, "The pitfalls of any study in this field are numerous, some of the more important being: (1) the preconceived notions, emotions and enthusiasm of the individual investigator, (2) the economic, social and medicolegal aspect of the problem, (3) lack of uniformity of interpretation of the same data by different observers, (4) the necessity of relying on statistical analysis, and (5) inability to subject such a study to well controlled laboratory conditions."

As to the question of precipitation of myocardial infarction or death in a person with coronary atherosclerosis by a physical or emotional episode, there are some clearcut aspects. If the stressful episode is an excessive one, that is, much more severe than usual, fatal coronary insufficiency may result, but in order to be a valid cause of death the heart attack must occur during or immediately after the episode. Moritz[8] states, "With each hour that intervenes between the pressor episode and the development of signs and symptoms of coronary insufficiency, the probability of a cause-and-effect relationship between the two diminishes." In some cases it has been alleged that the stressful episode caused rupture of a capillary within an atheromatous plaque with resulting swelling of the plaque and further narrowing of the lumen of the coronary artery or a thrombosis within it. The relationship is sound only if the stress is defensible, the heart attack follows almost immediately, and at necropsy a recent subintimal hemorrhage is found that has produced further obstruction of the vessel. It is conceivable, but it seems to me quite improbable, that many hours or days may intervene before the hemorrhage and swelling of the plaque have progressed to the point of occluding the lumen of the artery. As Moritz says, "... the need for distinguishing possible from probable causal relationship cannot be overemphasized. Almost any conceivable biological sequence is possible. To hold that any given sequence is possible requires evidence that tends to make no other explanation equally acceptable to the one being proposed." It has been stated that stress may cause rupture of an atheromatous "abscess" with resulting obstruction of the lumen of the artery. In a study of 950 hearts of men who died as the result of coronary heart disease made by my co-workers and myself,[9] I do not recall an instance in which this situation was found.

Quite often an attack of acute myocardial infarction following a stressful episode is claimed to be the result of coronary thrombosis due to the episode. This is a most difficult claim to defend even when a fresh thrombus is found at necropsy. It must be remembered that coronary thrombosis is a pathologist's finding and not a clinical diagnosis, although most cases of myocardial infarction result from this cause. However, coronary insufficiency may be so severe and prolonged that infarction results even without thrombosis, although a thrombus may occur because of the circulatory stasis at the site of narrowing of a lumen. Coronary thrombosis usually occurs either during ordinary activity or when the patient is at rest or asleep. My co-workers and I[10] found in a group of 450 young men who died as a result of coronary heart disease and whose hearts were examined that fresh coronary thrombi occurred in a much higher percentage in the large group of men who were in bed when death occurred. As Greer[11] so aptly states, "The patient is dealing with a progressive pathologic process which ordinarily pursues its natural course of obstruction or narrowing without any relation to external influences such as stress, strain or trauma." And Moritz[8] says, "The finding of coronary thrombosis with or without myocardial infarction at postmortem examination of the body of a person who collapsed and died during or immediately after an episode of stress cannot be construed as evidence that either lesion was caused by the events with which death was associated." It is hours or days between the onset of thrombosis and the development of the infarct and/or death.

Post-traumatic shock may cause fatal coronary insufficiency during the period of shock. If the victim is found to have coronary atherosclerosis with partially or completely obturated artery or arteries and the injury itself can be excluded as the cause of death, death may properly be ascribed to shock plus coronary insufficiency.

As to the question of the role of trauma of the heart in persons who have died of violence, extensive experience has shown that coronary thrombosis is rarely the direct result of trauma. A blow on the chest or even a crushing of the chest wall with bruising of the pericardium in itself practically never causes coronary thrombosis.

In the final analysis, although certain generalizations have been made, each case must be considered on its own merits. Many cases are complicated. Several case histories will be given to illustrate this point and different sets of circumstances encountered.

ILLUSTRATIVE CASES

Case 1. Mr. A. was 36 years old at the time of his death. He had served in the Air Force for 5 years. It was said that he worked 14 hours a day and often 7 days a week. For the last year part of this time had been spent in administrative work to which Mr. A. was not accustomed, and part had been spent in flying. Mr. A. took his job very seriously and liked it, but he had had difficulty in adjusting. Nothing unusual had happened during the 24 hours preceding death. Mr. A. was found dead in his automobile about midnight following a visit to an Officers' Club. Necropsy revealed severe coronary atherosclerosis but no acute process. The widow claimed that the strain of her husband's occupation precipitated his death. A week prior to his death Mr. A. had written his wife, "I am really tired at the end of the day."

Opinion. The most likely cause of death was coronary heart disease. Assuming that the cause of death was asymptomatic coronary heart disease, could the strain of an unusually heavy workload have accelerated it? A dogmatic answer cannot be given until it can be proved that long hours of work and fatigue influence the course of coronary atherosclerosis, possibly by affecting lipoprotein metabolism. We still hear the old saying that hard work never killed anybody.

Case 2. Mr. B. was 44 years old at the time of his death. He had served for 14 years in the military forces as chief of a very sensitive branch of the counterespionage service, a post which involved a great deal of pressure, long hours of work, and heavy nervous strain. He was a perfectionist and worked exceedingly hard. He often worked 7 days a week and frequently at night. Later he was assigned to an even more strenuous job, when one day while playing golf with a friend he claimed that his stomach was upset and he was having difficulty getting his breath. Later he collapsed and became unconscious. He was taken immediately to a hospital where he was pronounced dead. An autopsy revealed severe coronary atherosclerosis but no recent thrombosis or myocardial infarction. Aggravation of this condition was claimed.

Opinion. This case is similar to the preceding one. The answer to the claim is the same.

Case 3. Mr. C. had been a truck-driver for years and then had done general repair work on motor vehicles before working 10 years at the same job in a machine shop, doing rather heavy physical labor. One day, at the age of 51, he was pushing a power unit on a dolly weighing 1,500 lbs., which required 100 lbs. to start and 35 to 50 lbs. to keep moving, his usual type of work for the preceding year, when he developed a crushing substernal pain spreading to both shoulders and arms and lasting 20 minutes. He resumed work after that for 2 hours and then prepared to go home, when the pain returned for 15 minutes. On reaching home he went to bed but was awakened at 5:00 a.m. by a severe epigastric pain, which persisted. Mr. C. went to work and reported to the dispensary, where he was treated with an infrared lamp and aspirin. The pain lessened, and he went to work. However, he had to stop work soon because the pain increased. He told the dispensary physician that for some time he had had periodic attacks of chest pain with some referral to the left arm. Mr. C. went home, and the pain ceased after he drank a glass of milk. The next morning he went shopping and while walking upgrade had another attack of epigastric pain. An electrocardiogram was made, and Mr. C. was hospitalized for 4 weeks and then allowed gradually increasing activity. Two weeks after leaving the hospital another attack of substernal pain with referral to the shoulders occurred, and Mr. C. was again hospitalized for a month. He resumed working after another month, having been disabled for 135 days. Electrocardiograms had revealed that an acute posterior myocardial infarction had occurred. Mr. C. claimed that pushing the dolly had caused it.

Opinion. Here was a man who had had symptoms of coronary heart disease for an unspecified period of time before the onset of an acute myocardial infarction which occurred while he was performing a routine task. Undoubtedly, a thrombus had been forming in a coronary artery before the episode of pushing the dolly, and it was purely a coincidence that the pain occurred while a usual activity was being engaged in.

Case 4. Mr. D., a biologist, was 43 years old at the time of his death. One year before his death he had complained to his physician of attacks of awareness of his heart with a heavy feeling there and an aching pain in the left arm. These pains continued intermittently. Electrocardiograms before and after exercise showed no abnormality, but Mr. D.'s physician thought his patient might have coronary insufficiency. Mr. D. continued his work, which required strenuous physical activity, including mountain-climbing. One afternoon, while at the wheel of an automobile, he collided with another car and was thrown against the steering wheel, which was bent. Mr. D. did not immediately complain of pain in his chest but did so after returning to his motel 4 hours later. The next 2 days he was a house guest of friends and even went swimming with them. His friends commented on the pink spot on the front of his chest. After returning to his motel he had some pain in his chest again, but he worked the next 2 days as usual except for complaining to a co-worker that he felt chilly and thought he might have a little chest cold. He retired as usual but was found dead in bed the next morning, lying on his back with his arms folded across his chest and a blanket pulled up to his chin. Necropsy revealed no evidence of trauma to the heart, but there was severe atherosclerosis of the coronary arteries with a little hemorrhage in one of the plaques but without complete occlusion of any artery. The claim was that the accident precipitated death.

Opinion. This man was undoubtedly having attacks of mild coronary insufficiency a year before he died. Death did not occur until 4 days after the accident, during which time Mr. D.

was not incapacitated. This lapse of 4 days, together with the absence of any injury to the heart, indicated that death was a natural consequence of the coronary heart disease and not the result of the accident. There would, of course, be some discomfort from the contusion of the chest wall. Sudden and unexpected death in patients with coronary heart disease is common, due either to cardiac standstill or ventricular fibrillation. That Mr. D. died peacefully in his sleep is shown by the fact that he was found lying on his back with a blanket pulled up to his chin and his arms folded across his chest.

Case 5. Mr. E. was 39 years old when he had an acute myocardial infarction immediately after leaving an airplane following a forced landing. He claimed compensation on the basis that the fright due to the forced landing caused the infarction. He had had an infarction 5 years before and had had some angina pectoris since then. Mr. E. had been working unusually hard in a very responsible position in which he had differences of opinion with his superior officer for a year before the airplane episode. He stated that he had been feeling tired and "generally run down" for several weeks prior to the incident. On admission to the hospital he told the intern that he had been having angina of increasing intensity and length for 2 weeks and that during the night before he had awakened in the early morning with a more severe episode of pain which was relieved by the use of nitroglycerine and a sedative. Following recovery from the infarction, Mr. E. returned to work at a different post but stated that he lacked physical stamina and thought he might have to quit. His physician described him as a tense, anxious, emotional person.

Opinion. Did the conditions of occupation aggravate Mr. E.'s coronary atherosclerosis? The excessive work load coupled with a nervous temperament possibly could have done so, but again exact proof is still lacking. Did the fright from the forced landing cause the infarction? Undoubtedly it did not cause it, although it may have precipitated it by a short time. The history strongly suggests that an infarction was impending at the time of the airplane trip.

Case 6. Mr. H. at the age of 40 began work as an automobile mechanic and after a year had a severe acute anterior myocardial infarction from which he recovered very slowly. A year later he had an attack of severe precordial pain with inversion of T waves in several leads, probably the residuals of the previous infarction. Three months later another attack of pain occurred with some nonspecific ECG changes. Four months after that, or a year and a half after the infarction, Mr. H. worked outside on the frozen gas line of a vehicle which was enclosed by a curtain. He used a torch to thaw out the gas line. A fire broke out and Mr. H. staggered out with severe coughing and vomiting, due apparently to the inhalation of smoke and fumes from the fire, which he had tried to put out with a small fire extinguisher. He was taken to the hospital where he soon developed severe anterior thoracic pain lasting 24 hours. Electrocardiograms made the next day and the fourth day showed no new changes. An ECG 2 weeks later, just before discharge from the hospital, was identical. Ten days later, or 1 month after the fire, Mr. H. was hospitalized elsewhere, apparently with another acute anterior myocardial infarction. He entered a claim for compensation on the basis that the episode of fighting the fire and inhaling the smoke and fumes aggravated his heart trouble and precipitated further attacks and greater damage to the heart.

Opinion. Undoubtedly the episode of the fire precipitated a severe attack of coronary insufficiency, but from the electrocardiographic standpoint no additional cardiac damage resulted. It was a whole month later before the last myocardial infarction occurred. Therefore, it is improbable that the episode of the fire was responsible for further cardiac damage.

Case 7. Mr. G. died at the age of 68. Eight years before he had fallen from a height of 12 feet while at work and struck his head and back on a concrete walk, sustaining a fractured skull, laceration of the brain, subdural hematoma, right hemiplegia and cortical atrophy. He recovered from the hemiplegia but was completely disabled thereafter, living a very simple existence with almost complete loss of intellect. Three years later he developed the habit of digging at his face with his fingers, and 3 years after that of digging up rocks, bushes and shrubbery in the yard with a pick. Two years after this habit began, after supper and in the summer heat he dug up a large bush and became overheated and exhausted. Nausea and vomiting followed. He slept late the next day and then complained of not feeling well. He remained in bed most of the afternoon and was found dead at 5:00 p.m. Necropy revealed severe obliterative coronary atherosclerosis with acute myocardial infarction, which was without doubt the cause of death, since the brain showed nothing more than the damage caused by the fall 8 years before. The widow claimed that the exertion of digging up the bush precipitated death and that the obsession to dig up rocks and bushes was the result of the old brain injury.

Opinion. Study of sections of the infarcted myocardium suggested that the infarction began about 24 hours before death. If this were true the excessive exertion after supper the evening before death probably occurred a short time after the infarct started and aggravated the ischemia of the myocardium, either hastening death or preventing recovery. If the infarct did not begin to form until after the exertion, the probability is that severe, prolonged coronary insufficiency caused the infarction. The remote cerebral damage was therefore responsible for death, since it led to the obsession of digging.

Discussion

I could recount other cases illustrating still more problems. There are few cases exactly alike, but the principles propounded apply to all. In some there may well be a difference of opinion. Any internist called upon to render an opinion as an expert should ponder each case carefully in order that he may come to a just conclusion, whether his judgment favors the employer or the employee and regardless of which side pays him for his services. He must write his opinion in terms a layman may understand, realizing that very few have the knowledge he possesses of the problems involved. If he doesn't know, he should so state. He may use the terms "probably" or "possibly," but if he says "There is no doubt," he must have no reservations in his own mind. When he says "probably" or "possibly," he places the decision as to compensability in the lap of others, often laymen. If he says "There is no doubt," only another expert can justly take issue with him.

Summary

Claims for compensation in cases of coronary heart disease, the commonest cause of death, are mounting. It is the internist who is called upon to render an opinion as to whether occupation or a stressful episode accelerated or aggravated the disease or precipitated disability or death. The type of occupation for which an individual is trained and accustomed cannot be considered an accelerating or aggravating factor, but if the occupation coupled with the individual's temperament can be shown to cause undue stress the judgment may support the claim for compensation, since there is some evidence to show that stress may accelerate or aggravate coronary atherosclerosis in those susceptible by heredity and other factors to the disease. If a single stressful episode, physical or emotional, is claimed to precipitate myocardial infarction or death, the infarction or death must follow immediately or shortly after the stressful episode; but even then it must be remembered that an infarct may have been forming prior to the episode and that the episode could have been either merely coincidental or have still further overburdened the ailing heart. An attack of coronary insufficiency following a stressful episode but not providing evidence of additional damage to the heart is not a just claim for compensation. That decisions as to these matters may be difficult is attested to by the 7 illustrative cases presented.

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PEDIATRIC PSYCHIATRY IN A SCHOOL HEALTH SERVICES PROGRAM

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IN 1954, after school health services had become the responsibility of the Bureau of Maternal and Child Health of the D. C. Department of Public Health, a medical diagnostic clinic was set up to examine children referred from schools because of specific health problems which could not be handled by the physician and public health nurse in the school. As had been expected, it soon became evident that emotional factors played a large part in the problems of many of the children being referred. There were children with only mildly handicapping conditions who seemed unable to function adequately because of emotional problems; others with treatable medical conditions were not able to utilize available medical facilities because of emotional factors; and there were some with psychosomatic complaints. In addition to these children whose complaints were presented primarily as physical problems, there were others referred because of disturbed functioning in the classroom who had no apparent physical problems or complaints. These children were being referred by school doctors and nurses, principals of schools, teachers, counselors, the Department of Pupil Appraisal, the Attendance Department, the Remedial Divisions, and the Division of Special Services.

There was an obvious need for psychiatric services to help in the total evaluation of a child's health and the reasons for his school difficulties, and it seemed that these services might logically be a part of the school health diagnostic service. On an experimental basis a clinic team was set up consisting of 1 pediatric psychiatrist on a half-time basis and a full-time clinical social worker. This team functioned for several years. In order to develop more communication between the Health Department and the schools in the area of such services, an attempt was made to utilize, in so far as possible, psychologic services that could be provided by the Department of Pupil Appraisal of the District of Columbia Public Schools. In one-third of the patients for whom this service could not be provided by the school system the services of the psychologists in the D. C. Department of Public Health's Bureau of Maternal and Child Health were utilized.

There was a 2-fold purpose in conducting this service—to assist the school personnel in understanding the child, and to provide a more adequate medical study by adding information that could be made available via psychiatric examination. The mechanism by which this was done was through psychiatric study of the individual child and conferences with school personnel in regard to the child. Thus we hoped to provide services for the children and also a type of education and counseling for the school personnel who were concerned with the care of many other students with similar problems.

A centralized intake process was established to operate in the school health services. When a referral was made to the clinic in which an emotional problem of some kind was suspected, the referral was discussed at a weekly intake meeting attended by the psychiatrist, social worker, pediatrician, and a member of the school public health nursing staff. When the available information was reviewed a decision was reached as to whether the child should be studied by the psychiatric service or referred elsewhere for help, or whether additional information should be obtained before accepting the child for study.

When it was decided that a child should be studied, the parents were interviewed by the social worker. The child was later seen for a diagnostic interview by the psychiatrist, during which time the parent again saw the social worker. In each case psychologic testing of the child was sought. In many instances a medical examination had been done; if not, this was accomplished, and any additional consultations or laboratory procedures needed were carried out. When our study of the individual situation was completed a conference was held, to which the principal and/or teacher and any other interested individuals from agencies which had to do with the particular child or family were invited.

These observations are based on 100 children who were studied and on whom a conference was held during the period from July 1956 to July 1957. Their ages ranged from 5 through 17 years and their intelligence quotients from 50 to 133. Sixty-seven were males and 33 were females. The reasons for their referral were varied. The main categories for referral can be summarized as follows: disturbing antisocial behavior, 35 per cent; withdrawn behavior, 13 per cent; poor school performance, 11 per cent; somatic complaints, 9 per cent; and sexual misconduct, 7 per cent; with the remaining 25 per cent being made up of students with a variety of other reasons for referral.

Our conferences were an effective means of communication and coöperation with the school personnel and school health staffs. In addition to this, it had been requested by the Department of Pupil Appraisal that one morning a week be spent by the psychiatrist at its department in a consultative capacity. This time was utilized in various ways: There were consultations on procedural problems, administrative problems, and staff problems, and assistance in making decisions about individual pupils. One experimental phase in the use of the consultant at the Pupil Appraisal Department seemed to be of particular value. This was a series of meetings held with groups of elementary and secondary school principals, the meetings having been attended voluntarily by the principals upon the invitation of the head of the Pupil Appraisal Department. A total of 54 different people attended at least one session and some attended several sessions. The meetings were devoted to a general discussion of the problems they encountered in their schools, with the discussion being stimulated by the specific cases they brought up.

The general procedure in which the conferences on individual students were conducted was as follows: When a teacher and/or principal was present they were asked for their views as to the reasons for referral, other observations they would care to make, and what questions they would like to have answered, if possible, as a result of the study of the child. Next, the social and developmental history derived from interviews with the parents would be presented by the social worker. If any representatives of community social agencies were present they would then be given an opportunity to add information or to discuss any material that gave a different view of the family situation. The psychologic testing results, any medical examinations, and the psychiatric diagnostic interview were presented. A period of discussion was held by those in attendance at the conference, and finally the psychiatrist would dictate a summary of the findings; recommendations would be made as a result of this study of and conference about the individual child. A copy of the summary and recommendations was sent to the Pupil Appraisal Department in cases in which they had done the testing, and a copy of the recommendations was sent to the public health nurse in the school to be made a part of the child's health record. Following the conference the parents were seen by the social worker to interpret our findings and to give them suggestions for the future handling of the child.

In conducting our conferences an attempt was made to "speak a language" which could be accepted and understood by the school personnel. We also attempted to try to take into consideration the reality problems which existed in the schools. We felt it important to maintain a nonjudgmental, coöperative attitude toward the educators involved but at the same time make them aware of attitudes and ways of functioning that seemed apparent from the study of the individual child and which might be of assistance to them in helping the student involved.

The conferences served several useful purposes besides that of providing whatever help could be made available for the individual child. They were useful as a teaching medium for the school personnel who attended. The children who were seen came from 62 different schools. Since the conferences on the 100 children who were seen involved 26 school principals, 12 assistant principals, 13 counselors, and 31 teachers, a fairly substantial number of school personnel were "reached" through this approach even though attendance was not mandatory and the conferences could not always be held at a convenient time. In addition to the school personnel, public health nurses, who were one of the main contacts between the school and the home, attended 42 conferences. The case conferences also provided a means of liaison between the school health services and community agencies that were interested in the student or family. Workers from the Juvenile Court, Child Welfare, Family and Child Services, Veterans Administration Clinic, Police Department Women's Bureau, Bureau of Maternal and Child Health, and several visiting social workers attended some of the conferences.

A review of the recommendations made as a result of our studies provides information that could be useful in establishing special services for the schools or modifying existing special services. A variety of needs for special placement and special help were encountered even in the relatively small number of pupils we examined. These included a greater variety of classes for emotionally disturbed children, for children with varying degrees of brain damage, for constitutionally hyperactive children, and for children with limited intellectual potential. In some instances a particular type of teacher seemed indicated for particular students; for example, some children might do better in a classroom with a firm teacher rather than with a very permissive one, and where 2 grades of the same level existed a transfer could be effected when the principal saw the need as the result of the conference. In certain situations transfers on the basis of educational, social, or cultural factors appeared to be of value. An added dividend was available to teachers and principals in the form of new awarenesses as to technics of teaching that grew out of the studies on children with specific organically-based problems, such as brain damage, hyperactivity, and specific learning disabilities, especially mild aphasia. It should be pointed out that unfortunately many of the necessary classes were unavailable and there was not adequate "machinery" at this point for "following-up" to insure that as far as possible the recommendations resulting from the study of the child were carried out. Studies such as these would be useful in collecting data on projected needs in the school system and possible changes in class size. For example, a new special class for emotionally disturbed children was set up in the fall of 1957, and most of the students who were placed in it had been seen originally for an evaluation at our clinic. It is our impression after working with these problems that the cutting down of class size itself would be a great help in reducing the number of children who would be referred as problems and therefore require expensive (and usually unavailable) specialized help.

Our experience provided us with a good example of what special classes might accomplish. Two children had been referred to us for evaluation: one, a boy who had been described as a "menace to his classmates" and was very destructive; the other, a girl who was a slow learner and very withdrawn. Between the time of referral and the time of the conference held at the clinic both children had been put in a special class (8 or 10 students) which had been set up within their school and was taught by a young but apparently very capable teacher. By the time of the conference there had been much improvement, and one got the impression that these children would have needed psychiatric therapy had they not had the special class experience. A subsequent follow-up contact with the teacher revealed that the boy was still doing well, and the girl had changed from her withdrawn behavior to "acting up somewhat" in class, but the teacher felt that she could handle this behavior.

Besides the recommendations for special education there existed a need for further psychiatric treatment which most often was not available due to the lack of community facilities. Ideally 48 per cent of the 100 children seen during the year should have had further psychiatric treatment. In the case of an additional 14 per cent it was thought that treatment was indicated in the event that improvement did not occur following remedial approaches indicated by the clinic's diagnostic evaluation. For 5 per cent of the children seen, a residential type of treatment situation was the preferred plan, but facilities for this are usually unavailable. In a number of cases we thought also that the parents would benefit from further social casework help.

In the light of the considerable interest concerning the so-called "exclusion" cases of children who had to be excluded from school because of their behavior, it may be of interest that there were 8 children of the 100 reviewed who had been excluded from school. Although these children were in most instances in need of therapy, it was our belief that exclusion from school was not the best answer. It is true, however, that there is a need for special classes into which these children could fit. Even taking into consideration the administrative problems these children present to the school authorities, there was only one recommendation for exclusion in our 100 cases and only one for temporary exclusion if no school facilities existed.

Opportunities arose during the conferences for dealing with some attitudes and problems arising from racial integration in the schools. It seemed that certain situations which were not problems before integration became problems after integration, and when the individual situation could be discussed a different attitude seemed to emerge on the part of the school personnel. One capable junior high school principal told us that many problems which he had thought two years ago were due to integration itself he had come to realize, following conferences on individual children, were not actually due to integration but to other factors.

During the course of the year problems were encountered having to do with the acceptance of, or resistance to psychiatric concepts. Some of the teachers and principals were openly resistive, having had previous experience with psychiatric and psychologic services where they felt they received no usable recommendations. Others seemed to have some personal bias to psychologic concepts and came to scoff at, or object to the findings. One principal who stated he was attending the conference "just to see what was going on" was soon presenting the case of a boy who seemed to be having a psychotic episode and the principal did not know how the situation might be handled by the school. Some people who came to the conference seemed outwardly to accept our recommendations, but in reality didn't, or were unable to carry them out. One principal came to several conferences and mentioned her great interest in such meetings and her attendance at conferences at other clinics, but it seemed to the clinic personnel that the children involved derived little benefit as far as the carrying out of our recommendations were concerned. A more effective system of follow-up in such instances would seem to be indicated.

In direct contrast to the above, although some of the educators attending the conferences would object outwardly to the findings and seemed to be unaccepting of the material that was presented, we would subsequently learn that the recommendations of the clinic were utilized with a beneficial result for the particular student involved. On occasions during the conferences it appeared that the principal or teacher would begin to have some understanding of why they disliked a particular child, and they then began to realize that there were available ways of helping the student that they hadn't used because of their dislike of the student. In other instances during the discussion the school people began to think of resources they could use to help a child, such as clubs and recreation facilities.

It was thought that the principals, counselors, and teachers responded well to the type of approach which we attempted to use. This was evidenced by the better attendance at the conferences as time went on, keeping in mind that no one was obligated to attend. Also the social worker sensed less opposition in her contacts with the school people. Then, too, there were times when principals who had attended a conference and displayed a certain amount of resistance would call later concerning other problems they were encountering. In general the increased communication with the schools on a basis that they were able to understand seemed to make it possible for them to accept and use the information derived from the psychologic and psychiatric study of the children, and some developed a more realistic idea as to what psychiatric services could or could not do. However, it was noted that in one or two instances principals resisted coming. In one case repeated attempts to have a principal attend failed, and finally a teacher was sent to a conference and the teacher complained about the principal's attitude in relation to handling such problems. In some instances it appeared that we had to work with the principals when teachers were unwilling or unable to accept psychiatric concepts, and in other instances the public health nurse or physician needed help in dealing with a principal who had some specific bias.

One area where the case conferences and the conferences held at the Pupil Appraisal Department served a useful educational purpose was in creating some tolerance for cultural differences. This was done on the basis of information resulting from the study of a child or on the basis of information which came out of a discussion by a group of principals. The problems that might arise as a result of one's applying one's own standards to children of a low socioeconomic level were brought out and discussed. Many teachers and principals seemed to feel much better when they realized that they did not have to condone certain behavior, but that they could help the child more by understanding the behavior which was partly the result of a social or cultural situation far different from that in which the teacher grew up. One principal was able to point out to another that drinking whiskey from a half-pint bottle was in some settings similar to a before-dinner Martini. The difference in the neighborhood practices as related to sexual activity was another area where the school personnel were able to get a different view of the problems and hopefully develop a better method of handling problems as they related to this type of behavior. And the various ways in which hostility and aggression were controlled was still another area where the material derived from these studies developed a better understanding on the part of principal, teacher, and public health nurse.

Certain impressions occurred to us as a result of our studies. One of the more important impressions is that along with the great shortage of facilities for diagnosis, treatment, and special placement there is a waste of the already present resources due to the lack of a centralized intake service. A particular student may be referred to several places and even be studied by more than one facility, with a waste of time occurring because of duplication of efforts. The whole question of how best to deal with the interrelated educational, emotional, and medical problems of school children is a difficult one to answer because of the lack of centralized, coördinated services where adequate data could be collected. As this need became known to us a plan was worked on to bring about the establishment of a central intake service for the schools and health facilities, but this has not come to fruition. It still remains a real need.

Along with the need for centralized intake services there appears to be a great need for follow-up services. Because of the limited size of the social work staff it was often by chance that we had some follow-up. It would be important to know more about how much or how little these comprehensive studies of the child accomplished. We do know that in some instances it could not be of great value because of the circumstances involved, but we also know of several examples in which, even though psychotherapy was recommended but was unavailable, a great improvement was reported by parents after a period of time following the completion of our study and the subsequent interpretation of our findings to the school and the parent.

The need for trained social workers in this area can be pointed up. In our experience several plans for a child's handling and placement were not carried through properly because of inadequate liaison between the health service, the psychologic services, the school special services department, and the individual schools. For example, a teacher contacted us to inquire as to how she might handle a child who, following the study at the clinic, had changed from his withdrawn behavior to aggressive behavior. He was learning better, but the teacher needed some "follow-up" advice to help her in dealing with the new situation.

In a few instances an "emergency-type" of help with a particular problem was given, and in other situations it appeared that such help should have been available. An example of this is the case of a 12-year-old boy who had become involved in some sexual activity off the school grounds. When this came to the attention of the school he was immediately transferred to a school one hour's distance from his home, he was referred to a veneral disease clinic, and was sent to the Pupil Appraisal Department, to the mental hygiene clinic, and to our clinic. When this case was studied there was much to be undone and much to be changed, and secondary factors had been added to the boy's original problem as a result of the handling of the situation. If emergency consultation had been available a waste of professional time could have been prevented and a more beneficial treatment for the child evolved. The need for a centralized intake service is also demonstrated by this case.

A separate study of the material we had available revealed that many of the case histories showed abundant evidence of preschool or kindergarten origins of the symptoms that were presenting themselves later. It would seem that the eventual emphasis should be directed to the problem of what can be done in a preventive way at the preschool or starting-school level.

The problems encountered in studying a group of children such as were seen are many. The facilities available for providing help are few. This situation makes it difficult to answer the question as to how we might best help the children in need of help. In situations where psychotherapy is recommended it is too often unavailable. Even if it were available it is sometimes unrealistic to hope that a family with serious social and economic problems will avail themselves of the opportunity for treatment. However, the problems engendered by these situations still exist and are partly problems for the community as a whole. It seems to us that the schools offer one of the main avenues for helping correct some of the situations which are certainly difficult to correct. As a result of our studies we feel that a limited staff such as the

(*Continued on page 128*)

President's Page

HEALTH INSURANCE FOR THE AGED

Last month I discussed in very general terms some of the problems which retirement poses for many individuals. The budgeting of medical care costs is not the least of these problems. The medical profession is well aware of this fact. State and County Medical Societies are coöperating with the American Medical Association in the development of insurance protection, through liberalization of existing Blue Shield policies, and initiation of new insurance protection where none existed. All Blue Shield Plans extend coverage to subscribers when they reach the age of 65. Furthermore, 33 Plans already enroll individuals 65 or older, and additional Plans are developing programs for the aged. Private insurance companies are also making progress in this field. In spite of these facts we cannot become complacent. We must accept the need for increasing the scope of our efforts. We feel, justifiably so, that in time we will succeed. The history of Blue Cross and Blue Shield is replete with evidence of the physicians' desire to provide medical care through a system of voluntary health insurance.

An editorial in the *A.M.A. News* of December 14, 1959 states that a study of the financial resources of the aged indicates that there is much exaggeration of the need for financial assistance for a very large segment of older citizens. The study was conducted by the National Opinion Research Center of the University of Chicago and is based on a random cross-section of all older persons in the United States. Only 1 in 10 persons, according to this study, would be unable to pay a medical bill of $500.00. Furthermore, in most cases, the very individuals who fall in the needy group are not eligible for OASDI benefits, and for this reason would not receive any benefits under the Forand Bill.

Dr. Ethel Shanas, senior study director of the National Opinion Research Center, made some interesting observations in an address before the American Public Welfare Association. As reported by Betty Miles in *The Washington Star* of December 6, 1959, Dr. Shanas stated that only 2 per cent of the older persons would fail to obtain medical care because of a lack of funds. "The majority of older people," she states, "appear able to meet current physician charges for out-of-hospital contacts from their own resources." But, Dr. Shanas points out further, although 17 of every 20 admitted a recent illness, only ⅓ of the 17 admitted seeing or talking to a physician. Most older persons, according to Dr. Shanas, consult their doctors only for an acute illness, and in many cases refuse to believe they are sick enough to need a doctor. Many illnesses, if they have lasted for several years, are taken for granted.

Do these statistics tell the whole story? Could it be possible that some of the reluctance of older individuals to seek medical attention is subconsciously caused by worry about the cost of medical care? Let us not minimize the need for health insurance for the aged.

These comments are being written as Congress gets ready for its 86th Session. No doubt many proposals will have been made on the subject of health insurance for the aged by the time this column is published. Let us make our position abundantly clear. We recognize the need and desirability of health insurance for the aged. We feel that voluntary insurance is the best means of providing protection. We oppose the Forand-type legislation of the last Congress because it fails to provide benefits to the very group in which the need for insurance protection is greatest. If any of the new proposals should remedy these deficiencies, organized medicine will study them carefully in a spirit of coöperation for the good of all.

Victor R. Alfaro.

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Editorials

PUBLIC HEALTH PROGRESS—1959

1. *Participation of The Medical Society of the District of Columbia.* The Director of Public Health is pleased to acknowledge the valuable contributions and support given by the various committees of the Society. Much of this past year's progress would not have been possible without the Society's participation and support. The Medical Society of the District of Columbia has contributed much to the community through its efforts in supporting (a) the Chronic Disease Profile Screening Program, (b) public health emphasis on cancer detection, (c) Milk Regulations, (d) Food Regulations, (e) Maternity and Newborn Care Regulations, and (f) the preparation of the following proposed legislation: Tissue Bank Bill, Personal Care Homes, and the Registration of Sources of Ionizing Radiation.

2. *Medical Care Program.* There has been significant progress in the Medical Care Program evidenced by the following: (a) The Commis-

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia.

sioners amended the regulations of standards governing the eligibility of patients to receive care at District expense. (b) A modern Formulary was prepared. (c) An effective control program of Principles and Standard Operating Procedures, proposed by the contract hospitals, was inaugurated last year. Through the control efforts of the voluntary hospitals, these hospitals will be paid for a very high percentage of their services rendered in the program. (d) There are about 150 beds at Glenn Dale Hospital not now needed for tuberculosis patients, and this Department is in the process of formulating a program to use these beds for chronic disease patients who will benefit by such hospital care. (e) Glenn Dale Hospital has started a program for increased emphasis on the alcoholic problem of active tuberculosis patients. Also, a 2-day Institute was held on this problem. The D. C. Tuberculosis Association has provided Glenn Dale Hospital with a grant to support a study of the effects of amine buffers in respiratory acidosis. (f) During the past year considerable effort has continued to be expended in improving patient services at D. C. General Hospital. Many changes have been made on individual wards to improve patient services. One of the major changes that has taken place during the past year was the relocation of paraplegic patients and the neurological and neurosurgical patients to the fourth and fifth floors of the Pulmonary Disease Building into areas which had been especially renovated for this type of service. This has improved services to these patients and has made available the entire third floor of the Medical Building for the use of patients in the Department of Medicine. Howard University has taken over the service on this particular floor. The Howard University Medical Service began this program on August 15, 1959. The 3 University Medical Schools have intensified their efforts to strengthen patient services at the Hospital by increasing their active participation in the training programs and in the direct patient services.

3. *Chronic Disease Program.* Great strides have been made in developing a public health chronic disease program by a coördinated chronic disease profile screening clinic program, including public health screening and follow-up procedure for tuberculosis, venereal disease, cardiovascular disease, cancer and precancerous states, glaucoma, diabetes, and anemia. This Department has been awarded a $3\frac{1}{2}$-year Federal grant, beginning January 1960, to develop a public health cancer demonstration program, principally for the public beneficiary group of the District of Columbia population. The purpose of this project is to demonstrate how the knowledge from cancer research can be applied to a large public health clinic clientele. We are in the process of developing a coördinated program with the Department of Public Welfare institutions, D. C. General Hospital, and Glenn Dale Hospital to provide additional chronic disease hospital beds. In addition, we expect to provide additional beds for the chronically ill and aged persons by the formal licensing and accreditation of small personal care homes, developed around the philosophy of good patient care in an adequate environment in family residences. Proposed regulations to accomplish this have been prepared with the help of the Medical Society, and are before the Corporation Counsel for review.

4. *School Health Program.* Several accomplishments in the area of school health activities deserve to be mentioned. A policy committee has been formed consisting of representatives from the public schools, Department of Public Health, and the Medical Society to formulate objectives, policies, and procedures. A School Health Coördinator has been appointed in the public schools, and a similar coördinator has been appointed in the Department of Public Health to coördinate school health activities within each department and between the 2 agencies. A conservation of vision specialist has been added to the staff of the Department of Public Health to study existing vision screening

procedures at each school and to assist in developing a standardized procedure for this activity. Also, the number of public health nurses assigned to school health has been increased. In the Ringworm Program progress has been made. The griseofulvin oral therapy seems quite promising, with only 1,000 new cases discovered last year. In the Tuberculin Skin Testing Program, 15,000 students were tested, with 961 showing positive reactions; however, only 3 cases of active tuberculosis were found. It is encouraging to note that the incidence of tuberculous infection decreases with the decreasing age groups. For the age group 19 years and over, the rate was 20.6 per cent, with a progressive decrease down to 2.1 per cent for the 14-year-old group. Great emphasis has been expended on poliomyelitis immunization by special clinics, some being held at night, in order to provide neighborhood availability as to place and time for the low-income groups. Progress has been made in the dental clinics by providing "air-turbines" and accessories, thereby increasing the efficiency of operation of the clinics and increasing the comfort of the patients being treated.

5. *Mental Health.* The Bureau of Mental Health is engaged in a demonstration project of rendering follow-up services in the community to dischargees and patients on leave from St. Elizabeths Hospital. Efforts are being made to develop a program to provide foster homes for the aged or senile patients now at St. Elizabeths Hospital who have no place to go in the community. A psychiatric team is working in the school environment to provide help in dealing with children who have emotional problems.

In conclusion, we expect marked progress in our Comprehensive Chronic Disease Program with an increase in public health screening clinics, chronic disease hospital beds, and nursing home beds.

The changing health needs of the District and our program analysis with modification of programs during the past 2 years have demonstrated the need for continuous program evaluation on a more extensive basis with more complete and meaningful statistical data. We are placing emphasis on this need in our budget request for 1961.

Daniel Leo Finucane, M.D.
Director of Public Health for the District of Columbia

FOOD AND DRUG ADMINISTRATION—ALLY OF THE MEDICAL PROFESSION

Recent widespread publicity given to the Food and Drug Administration's regulatory activities in banning the sale of cranberries contaminated with the carcinogenic weed-killer, aminotriazole, and more recently the use of diethylstilbestrol in poultry to produce "caponettes," has focused attention upon its role in ensuring the safety of the food supply.

However, many members of the medical profession may not be aware that the Food and Drug Administration is a staunch ally of the physician in his endeavor to render the best possible medical care to his patients.

The Food and Drug Administration, by enforcing the provisions of the Federal Food, Drug, and Cosmetic Act, ensures the physician that the medicines he prescribes for his patients are safe and that adequate information for their use is available to him. It safeguards the integrity of his prescription, tests many commonly prescribed drugs to determine that they are pure and potent, and protects his patients from exploitation by unscrupulous promoters who have no reservations about claiming efficacy for their remedy in the treatment in any one of a host of serious diseases.

A pharmaceutical manufacturer cannot distribute commercially any new drug until he has submitted to the Food and Drug Administration convincing evidence derived from laboratory and clinical studies showing that it is safe to use in the manner recommended in its labeling. This gives the busy physician assurance that new drugs are not marketed until all data bearing on safety have been critically reviewed and evaluated by physicians in the Food and Drug Administration, who must be satisfied that the drug is safe under the conditions prescribed in its labeling. In addition to the consideration of safety of the drug itself, physicians in the New Drug section of the Bureau of Medicine carefully review brochures and other labeling relating to new drugs to determine that adequate directions and warnings are available so that the physician can use the drug properly and safely. The importance of the new drug provisions of the Food, Drug, and Cosmetic Act to the physician cannot be overemphasized. Dr. William H. Kessenich, Director of the Food and Drug Administration's Bureau of Medicine, stated in a recent paper that "Ninety out of every 100 prescriptions written today are for drugs that were not available even 15 years ago."

The Food and Drug Administration exerts every effort to preserve the integrity of the physicians' prescriptions. For example, 2 pharmacists in Long Island were prosecuted a year ago for substituting a simple cold remedy for a badly needed antibiotic which was clearly set forth in a doctor's prescription for use in treating a critically ill child. This willful substitution for the drug specified by the physician in his prescription was a violation of the Act and the court imposed a heavy penalty on the pharmacists. On numerous occasions the Food and Drug Administration has taken action against drugstores and pharmacists for refilling prescription-legend drugs without authorization of the prescribing physician and for over-the-counter sale of prescription-legend drugs without a bona fide prescription.

Another activity of the Food and Drug Administration is to test all batches of insulin and 5 of the most important antibiotic drugs for purity and potency before they are sold. The manufacturers pay for such tests.

In the flamboyant patent medicine days at the turn of the century, a plethora of concoctions were sold as cures for all sorts of diseases limited only in diversity and severity by the imagination of the promoter. It is self-evident that drugs should not be sold to the public for the treatment of such diseases as tuberculosis, Bright's disease, etc., which the layman cannot diagnose, much less intelligently treat. With the passage of the present Food, Drug, and Cosmetic Act in 1938, it became a violation of the law to sell medicines over the counter to the laity for serious diseases not amenable to self-treatment. This became more clearly "spelled out" by an amendment in 1951, which made a realistic distinction between prescription and over-the-counter drugs. As a consequence, unjustified indications for use on medicines sold over the counter have become the exception rather than the rule and unfortunate sufferers of chronic diseases requiring medical attention are not enticed to spend their limited funds for disappointing nostrums.

The physicians in the Bureau of Medicine share with their colleagues in active practice the desire to give the public the best medical care possible. Dr. Kessenich had this in mind when he stated recently: "It is the continuing aim of the medical staff of the Food and Drug Administration to reflect the high standards of American medicine in our daily role of safeguarding the practicing physicians' supply of drugs—the most effective and reliable in the world."

This brief recapitulation of some of the functions of the Food and Drug Administration of medical interest gives ample evidence that without the safeguards it provides it would be difficult to achieve today's high standard of medical practice.

KENNETH D. CAMPBELL, M.D.
Associate Medical Director, Drug and Device Branch, Bureau of Medicine, Food and Drug Administration, Department of Health, Education, and Welfare

THE ROLE OF THE CARDIAC WORK EVALUATION UNIT

One of the primary responsibilities of the physician is to assist his patient to maintain a useful and active life. Because there probably have been more misinformation and fear surrounding heart disease than any other single entity, the responsibility of the physician treating cardiovascular disease is increased.

We as physicians are often remiss in not offering a complete, unhurried explanation of the patient's illness and specific limitations if any. Lack of this information usually creates misconception. Thus, a patient will often impose unnecessary restrictions upon himself. It is obvious that this promotes far-reaching social and economic problems.

During the past decade some congenital heart diseases and, to a certain extent, acquired heart disease and occlusive vascular disease have become amenable to surgical treatment. Atherosclerosis, and specifically cerebral and coronary atherosclerosis, have remained an enigma to the medical researchers. Since this facet of heart disease occurs primarily in the male, and especially in the maximum earning period of life, it has become a most feared and misunderstood disease.

Many solutions have been proposed. Most alarming is the often unnecessary restriction of physical activity. It becomes apparent as we learn more of the pathophysiologic factors of certain heart diseases that more rather than less physical activity may be indicated. It was with these thoughts in mind that work evaluation units were conceived.

The American Heart Association and its affiliates have long recognized the problems surrounding heart disease and the economic hazards involved. In response to the need, Cardiac Work Evaluation Units have been formed throughout the United States. At the present time more than 50 such units offer service to their communities.

The Washington Heart Association organized its Cardiac Work Evaluation Unit in 1952, and it has been in continuous operation ever since. Its purpose is to provide the physician with a reliable and impartial appraisal of the employment potential of the patient with a work problem related to cardiovascular disease. This is done as a public service with no cost to the patient or the physician.

The Cardiac Work Evaluation Unit is a team composed of individuals of varied professions who together assess a heart patient's suitability for employment (or reëmployment) in terms of his physical and emotional fitness and work experience. They receive no compensation for their work. The Unit of The Washington Heart Association, for example, consists of the following members: a consulting cardiologist; an examining cardiologist; an internist, who is the director of the Medical Integration and Rehabilitation Unit, George Washington University Hospital; a social worker from the Family and Child Services for the District of Columbia; an employment counselor from the United States Employment Service for D.C.; a vocational counselor from the D.C. Department of Vocational Rehabilitation; a psychologist on the staff of the Medical Integration and Rehabilitation Unit, GWUH; a medical social worker from the Washington Heart Association staff, who acts as the Unit coördinator; and other consultants, who participate according to the particular problem presented.

The referring physician is always requested to participate in the team evaluation.

The team's appraisal, which is essentially a prescription for physical activity and a feasible guide to suitable employment, is presented in writing to the referring physician or clinic for consideration. A follow-up study (by interview only) is made by the unit coördinator. This aids in directing the future program of the Unit.

A typical example is the case of a public utility employee who sustained a significant coronary occlusion. He could no longer climb the required flights of stairs and perform other requirements associated with his occupation. After adequate treatment it became apparent that some drastic change was necessary in his work program. Retirement was indicated because of the patient's age and job experience.

At this point the patient was referred by his physician to the Cardiac Work Evaluation Unit. In conjunction with the company's personnel department and the patient's private physician the Unit evolved a new job "prescription," satisfactory to all concerned. The patient was returned to work and self-sufficiency, thereby preventing long-term dependency and a potential burden to the taxpayer. Employee, employer, and the community benefited.

As the problem of aging increases, so will the problem of cardiovascular diseases. To prevent physical and economic dependency we will have to restore the cardiac worker, when possible, to productive living and normal self-sufficiency. This is a matter of public education which is indeed the responsibility of every physician. The Cardiac Work Evaluation Unit is a small but significant tool in this educational and community service program.

JOHN W. DUCHEZ, M.D.
Chairman, Rehabilitation Committee,
Washington Heart Association

CLINICAL INVESTIGATIONS IN HYPERTENSION

The coöperation of physicians is requested in a continuing study of various forms of hypertension being conducted by the Section on Experimental Therapeutics, National Heart Institute, at the Clinical Center. Of particular interest are patients having moderate to severe hypertension which is either primary or renal in origin. The major interests of this study are the development of improved therapeutic agents and investigation of alterations of metabolism of various vasoactive amines such as noradrenalin and serotonin by means of administration of agents which are enzyme inhibitors. Examples of the latter include the increasing number of available monoamine oxidase inhibitors.

Patients found acceptable for admission should expect to be hospitalized for a period of about 1 month. During this time a complete appropriate medical workup is performed, the patient is studied during the administration of a new and properly screened compound, and finally the patient is placed on appropriate antihypertensive medications in current use and discharged to the care of the referring physician. It is preferred that the patient should not have advanced azotemia, marked congestive heart failure, or cerebral vascular insufficiency.

Further interests in the field of hypertension include study of pheochromocytoma and emphasis on hypertension of unilateral renal origin. In the case of pheochromocytoma, a diagnosis must be strongly suspected by either positive pharmacologic tests (Regitine, histamine) or by prior determination of urinary catechols. Laboratory capacity does not permit widespread screening of urines as a step prior to the patient's referral although urinary catechol assays are a routine part of the diagnostic hypertensive workup of admitted patients. Suspected cases of hypertension resulting from unilateral renal disease are also candidates for investigation in this program. History of sudden onset of hypertension, particularly in patients with no familial history of hypertension, or a rapid acceleration of already present hypertension strongly suggest such a diagnosis. Diagnostic studies at the Heart Institute would include renal arteriography and retrograde ureteral catheterization to determine unilateral function. Corrective surgery, either vascular repair or nephrectomy, would be performed as part of the study.

Physicians interested in referring such patients for study should write or telephone Dr. Louis Gillespie, Jr., or Dr. John A. Oates, of the Section on Experimental Therapeutics, National Heart Institute, Bethesda, Md. The telephone number is Oliver 6-4000; either one can be reached on Extension 3175.

In and Out of Focus

BY THE OBSERVER

More on Free Choice

The controversy over free choice of physicians is not new. In fact, it has been going on for a long time. Some 30 years ago bitter animosities were aroused over contract practice, especially in industrial centers. Differences became so charged with emotion that warring factions threatened to disrupt completely some medical societies. Private practitioners condemned in the strongest possible terms agreements entered into by contract physicians as unfair competition and a violation of the free choice principle.

Although contract practice is still frowned on by many physicians, the heat which was once constant is generated only sporadically. This occurred at the meeting of the AMA's House of Delegates in San Francisco in June, 1958. Delegates from several states charged Dr. Warren F. Draper, Medical Director of the United Mine Workers Welfare and Retirement Fund, with violating the free choice principle. In rebuttal Dr. Draper said that for a number of reasons free choice where members of the UMW were concerned had been restricted. Final action of the House on the controversy was postponed until the AMA's Commission on Medical Care Plans had completed its investigation and reported its findings and recommendations.

The Commission forwarded its report to members of the House and officers of state medical societies some weeks prior to the Clinical Meeting of the AMA in Minneapolis in December, 1958. The report proved to be surprisingly frank, especially where the matter of free choice was concerned. In the Committee's view:

> "Freedom of choice means the right of the individual to exercise, without restraint, selection among alternatives. Furthermore, as applied to medical care, an individual should have the right to select a physician of his choice. The medical profession subscribes to, supports, and strives to attain complete acceptance and application of this principle of 'freedom of choice.' "
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> "The medical profession is aware, however, that the principle has been restricted in its application in some situations. Among such instances are the following: by action of law; by social and economic changes leading to new methods of financing the cost of medical care; by action of the profession in establishing systems of staff appointments granting limited privileges; by the rating of physicians for the performance of various types of medical care; by the certification of specialists; by action of hospitals as recognized in the 1947 Report of the Judicial Council, which, in part, stated that, 'In order that a high standard of service be maintained, hospitals may limit somewhat the number of physicians who deliver medical services in their institutions and even assign a physician to certain definite fields in accordance with his training and experience.' "

"Good-BYE! . . . I'm calling Doc Jones. . . ."

Having come to grips with a most explosive issue, which aroused strong antagonism among some delegates, the Commission had to defend its position. It was a foregone conclusion that there would be a stormy session at Atlantic City in June, 1959. Upon instructions from the House, the Board of Trustees canvassed state medical societies for their views on free choice and the closed panel issue.

Under date of January 20, 1959, Dr. F. J. L. Blasingame, Executive Vice President of the

AMA, sent a memorandum to all state medical associations requesting their views on the following:

"1. *Free Choice of Physician:* Acknowledging the importance of free choice of physician, is this concept to be considered as a fundamental principle, incontrovertible, unalterable, and essential to good medical care without qualification?

"2. *Closed Panel Systems:* What is or will be your attitude regarding physician participation in those systems of medical care which restrict free choice of physician?"

At a meeting on February 23, 1959, the Executive Board of the Medical Society of the District of Columbia voted to request the opinion of the Committee on Medical Care on the above questions.

The Committee at its meeting on March 16, 1959, voted, in respect to item 1, "that the Committee believes principle of free choice is fundamental; however, it recognizes that there are certain praiseworthy exceptions."

With respect to item 2—Closed Panel System—the Committee voted in "favor [of] a tolerant attitude toward the participation of physicians in systems of medical practice restricting free choice providing a high quality of service is maintained."

The Executive Board at its meeting on March 23, 1959, supported the Committee's position.

As reported in your Observer's column in the September, 1959 issue of MEDICAL ANNALS, the Atlantic City Session of the House of Delegates lived up to expectations. The delegates from the states at loggerheads with UMW's Welfare and Retirement Fund were voluble in their criticism of the Commission's report. Fortunately, Dr. Jack S. DeTar, Chairman of the Reference Committee of the House, to which the report had been referred, proved himself very capable of handling the situation. (See "In and Out of Focus," MEDICAL ANNALS, September, 1959: "A Courageous Leader.") Under his guidance the following recommendations were adopted:

"1. The American Medical Association believes that free choice of physician is the right of every individual and one which he should be free to exercise as he chooses.

"2. Each individual should be accorded the privilege to select and change his physician at will or to select his preferred system of medical care, and the American Medical Association vigorously supports the right of the individual to choose between these alternatives."

It was thought that this would be an end of the matter, but those who opposed approval of these recommendations were ready to do battle again at the Clinical Meeting of the AMA in Dallas in December, 1959. They insisted that the recommendations approved in regard to free choice were unclear and submitted the following amendment, which was adopted:

"3. Lest there be any misinterpretation, we state unequivocally that the American Medical Association firmly subscribes to freedom of choice of physician and free competition among physicians as being prerequisites to optimal medical care. The benefits of any system which provides medical care must be judged on the degree to which it allows, or abridges, such freedom of choice and such competition."

Your Observer agrees with critics of this action that the amendment adopted at Dallas is not compatible, and, in fact, conflicts with the recommendations previously adopted. As indicated above, the position by the D. C. Medical Society's Committee on Medical Care and its Executive Board implies support of this position.

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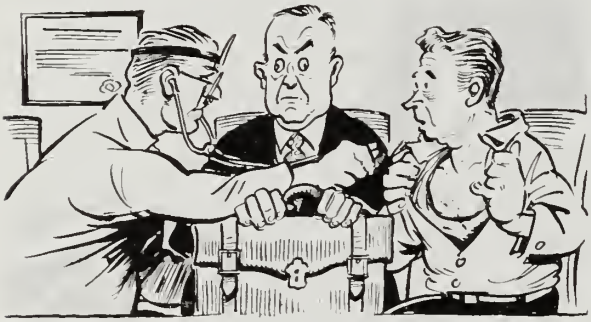
Dr. Wilbur and Third Parties

One of the ablest members of the AMA's House of Delegates comes from California. His name is Dr. Dwight L. Wilbur. His father, the late Dr. Ray Lyman Wilbur, one time President of Stanford University, was President Hoover's Secretary of the Interior. He was also the Chairman of the now historic Committee on the Costs of Medical Care.

Son Dwight is distinguished in his own right as a medical educator and leader in his profession. As President of the American College of Physicians he addressed the last Annual Convocation of the College. The subject of his address, "The Future of the Practice of Medicine," might well have been entitled, "The Third Party Influence on Medical Practice." Early in his address, Dr. Wilbur stated:

> "The modern physician recognizes the importance of the physician-patient relationship, but in the complicated practice of medicine today, it is less easy for him to establish and maintain such a relationship than it was for the old-time physician. This is because of the constant potential of impairment of the relationship by a 'third person' who, figuratively, enters the sick room or the office and may sit at the bedside with or, at times, between the physician and the patient. These third persons may sometimes significantly improve—although they may also alter or dilute or limit—the physician-patient relationship and the application of medical science and art in the care of the patient."



"Two's company . . . but THREE . . . ?"

In Dr. Wilbur's view the following individuals and groups might be considered "third persons": "'health insurance,' agencies of Government at local, state, and national levels, labor unions, insurance companies, voluntary health agencies, the press, the legal profession and the judiciary, pharmaceutical manufacturers, industry and corporations."

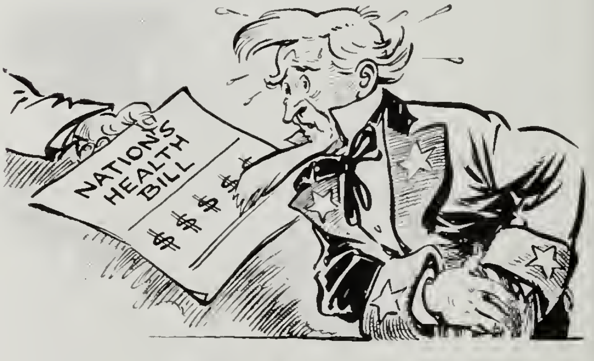
"Control or direction of the practice of medicine by them is not only a threat but also, in some instances, an established fact." Unfortunately, he said, the "quality of medical care is poorly understood by them, and is of secondary importance." At this point, he offered illustrations of the influence of "third persons" on the practice of medicine.

> "*Health Insurance*: Well over 100,000,000 Americans have some sort of health insurance coverage. This has been a tremendously important movement in improving the medical and hospital care of the American people. However, because the primary consideration of the company or the organization selling health insurance must be sound business, there are in its methods inherent threats to the practice of medicine."

Dr. Wilbur had praise for Blue Shield Plans because they are "strongly in the hands of organized physicians and medical societies [and] can [therefore] experiment with new types of coverage, if necessary by subsidizing the cost of medical care through the use of service plans.

"The profession must continue to control Blue Shield organizations, and to use them not only as an important economic device, but also as a research arm in the field of medical socio-economics."

> "*Government*: Approximately one-third of the health bill of the Nation is paid for by Government, chiefly through the Veterans Administration and the Department of Defense. The Medicare Program, the Home Town Care Program for Veterans, the Public Assistance Program, Aid to Crippled Children, Vocational Rehabilitation, and Industrial and Workmen's Compensation, all indicate the growing strength of the National and State Governments in the field of medical care.



"I see what they mean by Cost of Living!"

> "Here, again, is a dangerous threat to high quality of medical care, for Government is politically motivated,

and the quality of the medical care it pays for can hardly be a primary consideration.

"*Labor Unions*: In their rapid struggle upward, labor unions have looked upon medical care as a fringe benefit and as a 'right.' Their demands have been met by a variety of health plans, including various forms of health insurance and the development of health centers. 'Complete coverage' is a slogan frequently used. Again, the practicing physician notes much that is good in these schemes, but he also sees dangers to the physician-patient relationship and to the quality of medical care.

"*Voluntary Health Agencies*: Such agencies as the National Tuberculosis Association, the American Cancer Society, the American Heart Association and the National Foundation (which once was the National Foundation for Infantile Paralysis) have played an exceedingly important role as third persons."

The activities of these organizations have their drawbacks, Dr. Wilbur stated, because they create a state of "national acute anxiety." The result may be "needless expensive tests or therapy."

Press: Dr. Wilbur paid tribute to the press because of its generally accurate medical reporting, stating that it has "greatly simplified public understanding." He objected to the "publishing and broadcasting of much inconclusive, anxiety-inducing, false-hope-raising material [which] may be extremely detrimental to the patient, family and physician."

The Law: He criticizes the legal profession because of the activities of many of its members on behalf of clients which result in "substantial judgments against physicians for alleged malpractice when in fact the unfortunate results may have been fortuitous, have tended to lead physicians to make tests that would be considered unnecessary for purely medical purposes, simply to protect themselves in event a law suit should develop."

"*Pharmaceutical Manufacturers:* There is no factor more important in the field of postgraduate medical education than the pharmaceutical manufacturer. He is directly or indirectly the most potent third person in the practice of medicine." The reason, Dr. Wilbur stated, is that manufacturers provide funds through the purchase of exhibit space at medical meetings and advertising in medical journals which make it possible for medical societies to present effective educational programs for their members.

His conclusion with respect to "third persons":

"In my judgment, the influence of any third person must be put to a test. Does the influence he brings into the sick room raise or lower the quality of medical care? Is it good or bad for the patient—is it beneficial or harmful to the physician-patient relationship? Does it have a good effect on the public health?

"If, after mature reflection on all aspects of the situation, the answer is in the affirmative, then the particular third person relationship in question should be maintained. If the influence is not good for the patient, for the quality of medical care, and/or for the physician-patient relationship or the public health, then it, or that aspect of it which is questionable, should be further questioned or abandoned."

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CD Again! Where Washington doctors are concerned, Civil Defense in the District of Columbia has been somnolent for several years. The "Guide for Civil Defense Action in the Washington Warning Area," which was mailed recently to all citizens in this part of the country, revived memories of many unhappy experiences which the Society and some of its members have had since World War II in an attempt to develop a workable CD medical program.

The Guide contains much vital information for survival in the event of an enemy attack, such as a description of radio warning signals, radio frequencies on which warnings will be given, protection against radioactive fallout afforded by ordinary buildings, the construction of home shelters, methods of decontamination, and other essential survival items. The instructions, if followed, would undoubtedly save many lives, unless, of course, devastation were complete. However, it is doubtful that most people would act upon the advice given unless an effective organizational campaign is carried on under Government auspices. Perhaps this is undesirable psychologically; nevertheless, the fact that the

Guide was distributed would indicate the urgency of steps being taken by the citizenry for their own protection.

Directions for evacuation of the population should an Alert Signal be given would appear to be fraught with danger. The Guide states that the Signal "means an enemy attack is on the way—but there still is time to move to relatively safer areas. This Signal means your Government recommends evacuation." Enclosed with the Guide is a map showing the routes to be taken by citizens of the Washington Metropolitan Area in event evacuation is possible.

Those working in downtown Washington are painfully familiar with the heavy traffic on the arteries they travel morning and evening. At certain junctures automobiles and buses are frequently lined up in three lanes for many blocks. One can imagine the jam which would result if there were a warning to evacuate. The utter confusion and even panic which might result stagger the imagination.

The Guide states that "a maximum effort will be made in these areas to give evacuees food, shelter, clothing, *medical attention* and other necessities." So far as your Observer is aware, physicians in the District of Columbia have not been organized to provide medical services at reception areas. The only organized group of physicians in existence prepared to respond in emergencies is the Medical Emergency Disaster Service (MEDS) sponsored by the District Medical Society. (See MEDICAL ANNALS, "Medical Emergency Disaster Service in D. C.," January 1958.) What has been done about furnishing other essentials for maintaining life of the men, women, and children who reach the reception areas, your Observer does not know, but it seems to him that medical services would be as important as any other necessity of life.

It is stated in the Guide's Foreword that "the plans are not static. They are under continuous review." That, at least, is encouraging, but the question remains, is the Guide sufficient in itself to prevent the unnecessary suffering of the people should a bombing occur? Is an official educational program called for? Are plans for the evacuation of the people in the Washington Metropolitan Area in an emergency too hazardous? Have adequate provisions been made for the care of those who reach the reception areas? What has been done about organizing a medical service to care for survivors of an enemy attack?

These are questions which are disturbing a number of individuals with whom your Observer has talked. They feel that answers to them now are imperative.

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Age, Disease and Drugs

Congressional hearings recently conducted by Senator Estes Kefauver have focused public attention on the "high cost" of drugs. Some of the witnesses have been extremely critical of pharmaceutical companies, charging them with "profiteering." The result has been a field day for newspaper reporters, editorial writers, and columnists.

Heads of pharmaceutical companies have, of course, had their say, denying the allegation that they are making exorbitant profits. The *American Druggist*, trade publication, reports that prices on 2,332 drugs have been reduced in the last 8 years, while the cost of only 1,226 has increased. This publication also points out that there are 5,000 previously unavailable drugs which have in the last 10 years saved millions of lives and have prevented many people from going to hospitals. Some of these drugs have "worked miraculously fast cures," the publication states, justifying the drug industry's boast that more people liver longer and enjoy life more fully.

One of the columnists who has strongly defended the drug industry is George E. Sokolsky. In his column in *The Washington Post* on Christmas Day he stated: "The drug industry is not a racket. Those who manage its various firms are not racketeers. The worst that can be said about them is that they have handled their public relations stupidly and have failed to make adequate explanation of their system of pricing."

He pointed out that there are two principal factors that enter into the cost of operating a pharmaceutical business. The first is research, which, he said, is costly because "most of the expense is wasted." "Many projects," he observes, "fail after years of effort." For example, research laboratories, private and public, have long sought the cause of and cure for the common cold but have not come up with an answer. Thousands of dollars have gone into these projects.

> "No one can deny," Mr. Sokolsky says, "that the pharmaceutical industry has aided in the conquest of death, or to put it more moderately, the prolongation of life. Such diseases as pneumonia, influenza, tuberculosis, gastritis, diphtheria, bronchitis are no longer as damaging as they were half a century ago. The sulpha drugs, antibiotics, and other so-called miracle drugs have done much to prolong and to save life.
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> " . . . If the drug industry had adopted a sound policy of public relations," Mr. Sokolsky insists, "it would have asked the newspapers to publish the long list of life-saving and pain-easing drugs which it has succeeded in discovering by research."

He, like many physicians, is of the opinion that the publicizing of drugs is unnecessarily expensive. Circulars, samples and advertisements, he says, cost money and their value may be questioned. On the other hand, detailing physicians and promotion of drugs are generally essential.

Speaking of the increase in the number of drugs and their value, the Health News Institute of New York directs attention to the changes in the nature of disease with the changing pattern of the American population. This requires many new drugs, the Institute states.

The Institute observes that since 1950 the population over 65 has jumped from 12 to 15 million. Readers of this column are only too aware that diseases peculiar to this age group are becoming more prevalent. However, some statistical information should be of interest.

In 1956 more than 854,000 Americans died from some form of circulatory and heart diseases. Of these 609,000 were over 65. Of every 1,000 Americans over 65, 42 died of these diseases as compared to 1.6 deaths for every 1,000 Americans under that age.

In 1956, 247,000 Americans died of cancer. Of this number 130,000 were over 65, while 117,000 were under that age. Of every 100,000 Americans over 65, 906 died from a malignancy in 1956 as compared to 77 per 100,000 under 65.

> "As a result of this changing pattern of age and disease," the Institute points out, "American pharmaceutical manufacturers are diverting more and more of their research into the development of medicines for heart disease, cancer and the chronic ailments which beset us in old age.
>
> "For they feel it is not enough that Americans today live longer than ever before. Equally important is to make sure that these 'golden' years of life are truly golden, free from the pain of cancer, the crippling of heart disease and arthritis, or the mental degeneration of senility."

★

Composers under Scrutiny

An article appearing in the January 1960 issue of the *Bulletin of the New York Academy of Medicine* by Dr. Albert C. Sherwin, Assistant Professor of Psychiatry at Cornell University Medical College, explored the relationship between musical creativity and emotional disturbance. Dr. Sherwin's analysis makes highly interesting reading even to the psychiatrically untrained mind. Dr. Sherwin writes:

> "One is struck . . . by the fact that manifestations of musical talent (not always precocious but quite definite) appear in most composers very early in life. Indeed, in cases where great composers have failed to display evidence of such talent before the age of 12, their biographies generally note this fact as an unusual finding. Actually, the creative drive itself often seems to appear quite early in life. Most great musical creators composed in small and sometimes large forms in their teens, if not before, and in a significant number of instances were able to create masterpieces or works of more than historical interest during this period of their lives."

Cited as an example is Franz Schubert, who wrote the immortal *Erlkoenig* when he was 18 years of age. Mozart and Mendelssohn were also among the "greats" who produced musical masterpieces in their extreme youth.

It appears that women have not distinguished themselves in musical composition. "This is interesting," Dr. Sherwin states, "because in the past two centuries, as we have witnessed the gradual so-called emancipation of women, their sex has produced distinguished novelists, playwrights, painters, sculptors, and scientists. Yet, we still await a first-rate woman composer, and even second-rate composers are hard to find." However, there have been women instrumentalists and pedagogues of first rank.

Directing attention to the difference between music and other arts, Dr. Sherwin says: "Music has often been called a language and indeed it has many characteristics to justify such a description. It possesses a similar flow. In contrast to graphic arts it requires time for its unfolding, and one must follow its own special form and logic to its conclusion before one can comprehend the whole. But if music is indeed a language, it is also a nonverbal language. It defies translation into words. By the same token, it is completely abstract and highly symbolic."

> "By the act of creating, the composer has not communicated anything. At best he can be said to be talking to himself. For his creative expression to constitute a form of communication it must be performed, and it generally depends upon performance by others. When a painter has finished his creative product, it is there for anyone to see it. The novelist, if only he has the good fortune to find a publisher, has, by the very act of creating, produced something that can be read and re-read without further ado. . . . But the composer must find a performer as well as an audience. Even if he himself is a distinguished musician, he generally gets around to writing works for instruments or combinations beyond his technical capacity."

The composer, Dr. Sherwin observes, "develops an extraordinary capacity for vivid auditory imagery. He is usually able to dream up a whole orchestra. Even if he is deaf, as was Beethoven, he is able to imagine the most complex harmonies. Some composers have fantasied an entire composition before beginning to notate it." It appears, then, that the great composer is an "inveterate daydreamer."

Where mental illness is concerned, Dr. Sherwin states:

> "We know of no significant emotional illness in the lives of composers like Bach or even Mozart although this is not to deny their possible existence. On the other hand, a number of great composers were certainly subject to emotional disturbance, in some instances of severe degree. There is a large body of evidence for emotional disturbances in composers of the 19th and early 20th centuries especially. Whether this is a reflection of the growing interest in psychiatry during this period, as well as an increased interest in the creator himself, or whether this indicates that the Romantic composers were a fairly unstable lot, is difficult to say. In any event, these people lived recently enough that in some cases it is possible to arrive at a tentative diagnostic impression even with the incomplete material. Such impressions indicate that these composers as a group were not subject to any single kind of illness. For example, Schumann was probably schizophrenic; Mussorgsky was alcoholic; Mahler, who had one lengthy consultation with Freud, was said to have had an obsessional neurosis. As to personality traits in general, if composers do indeed have certain ones in common—notably obsessive-compulsive or schizoid ones—clinical evidence for this is not yet clearly established."

Generally speaking, it appears that some of the great composers created their works "under conditions of emotional pressure or symptoms." If these were too great their creativeness suffered or was "blocked altogether." Of greater importance is "whether unconscious conflicts associated with emotional difficulties in the composer are also associated with his creative drive and productivity." This is a controversial matter, Dr. Sherwin states, and no final conclusion can be drawn.

Fears that psychotherapy "might impede creative activity are essentially without clinical basis," according to Dr. Sherwin. If anything, "such treatment could be expected to enhance the creative productivity of the composer."

T. W.

REPORT ON MEETING OF AMA HOUSE OF DELEGATES*

A summary of the proceedings of the House of Delegates has been published in the *AMA News* for December 14 and is already in the hands of the members. Therefore this report will touch on only those matters which seem of particular interest to the Society.

Four resolutions were introduced which would have changed or replaced the statements on Freedom of Choice of Physician which the House adopted in June 1959 in its consideration of the report of the Commission on Medical Care Plans. None of the resolutions were adopted but the House reaffirmed 2 policy statements previously adopted, that:

"1. The American Medical Association believes that free choice of physician is the right of every individual and one which he should be free to exercise as he chooses.

"2. Each individual should be accorded the privilege to select and change his physician at will or to select his preferred system of medical care, and the American Medical Association vigorously supports the right of the individual to choose between these alternatives."

In order to clarify and strengthen its position on the issue of freedom of choice of physician, the House also adopted this additional statement which was submitted as a substitute amendment on the floor of the House:

"3. Lest there be any misinterpretation, we state unequivocally that the American Medical Association firmly subscribes to freedom of choice of physician and free competition among physicians as being prerequisites to optimal medical care. The benefits of any system which provides medical care must be judged on the degree to which it allows, or abridges, such freedom of choice and such competition."

The House received 12 resolutions on the subject of Relationship between Physician and Hospitals. It acted on none of them but instead, and to leave no doubt of its position, it reaffirmed the "Guides for Conduct of Physicians in Relationship with Institutions" which had been previously adopted in 1951, and further declared that "all subsequent and inconsistent actions are considered superseded."

It did accept recommendations that (1) the House of Delegates acknowledge the need to strengthen relationships with hospitals by actions at state and local levels, (2) the Board of Trustees of the Association continue to maintain liaison with the Board of Trustees of the American Hospital Association, and (3) the Council on Medical Service review this entire problem to determine whether there have been inconsistencies with the 1951 Guides.

Those Guides summarize the following general principles as a basis for adjusting controversies and are repeated here for information:

> "1. A physician should not dispose of his professional attainments or services to any hospital, corporation or lay body by whatever name called or however organized under terms or conditions which permit the sale of the services of that physician by such agency for a fee.
>
> "2. Where a hospital is not selling the services of a physician, the financial arrangement if any between the hospital and the physician properly may be placed on any mutually satisfactory basis. This refers to the remuneration of a physician for teaching or research or charitable services or the like. Corporations or other lay bodies properly may provide such services and employ or otherwise engage doctors for those purposes.
>
> "3. The practice of anesthesiology, pathology, physical medicine and radiology are an integral part of the practice of medicine in the same category as the practice of surgery, internal medicine or any other designated field of medicine."

Realizing the need for an increasing number of physicians in the future and recognizing and being willing to assume its responsibility to assist in providing for that need, the House approved the creation of a special study committee which was asked to:

1. Present a scholarship program, its development, administration and the role of the American Medical Association in fulfilling it.
2. Ascertain the maximum to which medical schools could expand their student bodies while maintaining the quality of medical education.
3. Ascertain what universities can support new medical schools with qualified students and sufficient clinical material for teaching—either on a 2-year or a full 4-year basis.
4. Investigate the securing of competent medical faculties.
5. Investigate financing of expansion and establishment of medical schools.
6. Investigate financing of medical education as

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* This report is a summary of actions of the House of Delegates which met during the 1959 Clinical Session of the American Medical Association in Dallas, Texas, December 1–4, 1959.

to the most economical methods of obtaining high quality medical training.

7. Develop methods of getting well qualified students to undertake the study of medicine.

8. Investigate the possibility of relaxing rigid geographic restrictions on the admission of students to medical schools.

The House urged that the special committee be implemented promptly with adequate funds and staff so that it may make an initial report by June 1960.

In reaffirming a previous policy statement, the House approved in principle the conducting of Relative Value Studies by each state society rather than a Nation-wide study or a series of regional studies by the AMA. It reauthorized the Committee on Medical Practices to inform each state medical association through regional or other meetings of the purpose, scope and objectives of such studies, the method of conducting them, and the manner in which results can be applied.

Aware that this is a controversial subject, the House pointed out that the regional conferences of the Committee on Medical Practices are educational and should in no way be thought to be a method for forcing the adoption of Relative Value Scales.

Incidentally, a regional conference on this subject will be sponsored by the Committee on Medical Practices in Washington, D. C. early in 1960.

Voluminous reports from the Board of Trustees and the various councils and standing committees of the Association were considered as were a number of other resolutions.

Among some of the actions taken, the House:

Emphasized that local medical societies should insure that no member violates ethical traditions as they relate to ownership of pharmacies or stock in pharmaceutical companies;

Approved the plan of the Committee on Medical Rating of Physical Impairment to publish its new guide on the cardiovascular system in the AMA *Journal*;

Recommended that Association councils and committees, whenever feasible, hold their meetings in the remodeled Chicago headquarters;

Called for investigation of the need, desirability and feasibility of establishing a home for aged and retired physicians;

Urged active promotion and careful study of the newly developed "Guides for Medical Care in Nursing Homes and Related Facilities";

Suggested that fees for consultative examinations under programs of the Bureau of Old Age and Survivors Insurance should be adjudicated directly between the state medical society and the state agency involved;

Registered a strong protest to the Veterans Administration, urging stricter screening of nonservice-connected disability patients admitted to Government hospitals;

Reiterated the Association's support of the Blue Shield concept and directed the Council on Medical Service to submit at the June, 1960 meeting its recommendations concerning a policy statement on AMA relationship with Blue Shield plans;

Suggested that S. J. Res. 41, a bill which would institute a separate program of international medical research, be delayed until an overall assessment can be made of proposals now before Congress dealing with domestic and international medical research;

Endorsed the program of the Educational Council for Foreign Medical Graduates but also urged that judicious consideration be given to local problems involved in the July 1, 1960 deadline for certification of foreign graduates;

Urged that medical schools include in their curricula a course on the social, political and economic aspects of medicine;

Declared that the threat of nuclear warfare has imposed a tremendous responsibility on the medical profession, which must be prepared to assume a critically important role in such an event;

Suggested that the AMA make available to school libraries information and literature showing the advantages of private medical care and the American free enterprise system;

Stated that examinations to determine the physical and mental fitness of aircraft crew members should be made by doctors of medicine with special knowledge and proficiency in certain technics;

Urged the American people to get proper tetanus toxoid, original and booster, and other immunizations as indicated from their physicians, and called on AMA members to coöperate in an educational program on tetanus immunization;

Recommended that all state and county medical societies establish programs for the inspection and testing of all fluoroscopes and radiographic equipment;

Approved the Speaker's proposal that the opening session of the House, at the Interim Meeting, be moved from Tuesday morning to Monday morning, with the reference committees meeting on Tuesday and the House reconvening on Wednesday afternoon;

Called upon each individual physician to wage "a vigorous, dynamic and uncompromising fight" against the Forand type of legislation;

(*Continued on page 128*)

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SPEAKERS ADDRESSING DOCTORS' OFFICE STAFFS

An interested audience of nurses, secretaries, medical and laboratory technicians were present at the Symposium sponsored by the Medical Society of the District of Columbia in its auditorium, January 15.

(1) Dr. Paul R. Wilner, Chairman of the Committee on Public Information and Education which prepared the program, moderated the meeting.

(2) Dr. Russell B. Roth, urologist of Erie, Pa., with the use of slides, illustrated "The Lighter Side of Medical Practice."

(3) Mr. Robert J. Mitchell, representative of Pfizer Laboratories, discussed the problems of the Detail Man and how some of them could be solved with the assistance of the secretaries.

(4) Mr. LeRoy Morrison, from the Washington field office of the Bureau of Narcotics, spoke on "How Not to Be Fooled by Drug Addicts."

(5) Mrs. Sally Stoltze, training consultant with the Chesapeake and Potomac Telephone Company, assisted by Mr. James S. Brownfield, the Company's commercial representative, demonstrated with considerable humor some of the Do's and Don'ts in developing good relations between the patient and the physician via the telephone.

HEALTH BENEFITS FOR FEDERAL EMPLOYEES*

The following questions and answers have been prepared by the Civil Service Commission to answer the many questions being received about the new law providing health benefits for Federal employees. This material is based on the law itself. Many questions cannot be answered in detail at this time because regulations have not yet been drafted and arrangements with the various health plans have not yet been made.

More information on health benefits will be issued as details are worked out. Federal employees will be given full information in ample time to enroll for benefits before the law becomes effective in July 1960.

ELIGIBILITY

Q. Who is eligible for health benefits?

A. Generally speaking, all employees who are eligible for Federal Employees' Group Life Insurance. (One exception to this rule is Tennessee Valley Authority employees; they already have their own health benefits program and cannot be included under this one.)

If you have the group life insurance, you will be eligible for the health benefits coverage.

Q. I do not have group life insurance because I signed a waiver of coverage. Can I get the health benefits?

A. Yes. The two are separate and not related to each other.

Q. Will the health benefits program be compulsory?

A. No. You do not have to apply for it if you do not wish to be covered.

Q. Will health benefits coverage be automatic or will it be necessary to fill out an application?

A. Coverage will not be automatic. Each employee who wishes to be covered will have to apply.

Q. Should I apply for the health benefits now?

A. No. The health benefits will not begin until the first pay period after June 30, 1960. Before that date you will be given full information by your employing office and you will have plenty of time to apply.

Q. If I drop the health benefits coverage I now have would my eligibility to join the Government-sponsored program next July be affected?

A. No. However, the safest thing is to continue your present health benefits plan until you come under the Government-sponsored program. In this way you will have continuous protection.

Q. Will the health benefits be only for myself or can my family be covered also?

A. You will be able to enroll for yourself only or for yourself and family.

Q. What members of a family may be included?

A. Your wife (or husband) and any unmarried children under the age of 19, including adopted children and also stepchildren if they live with you.

An unmarried child may be covered regardless of his or her age if he is incapable of self-support because of a disability which began before he reached age 19.

Parents or other relatives cannot be covered even though they may live with you.

Q. Will I or any member of my family have to pass a physical examination to enroll for health benefits?

A. Not if you enroll at the first opportunity. If you enroll later, you may have to furnish evidence of good health.

Q. Can I (or a member of my family) be excluded from joining a plan because I have a hazardous job?

A. No.

Q. Can I be excluded from joining a plan because of my age?

A. Not if you enroll at the first opportunity. Employees and family members will be originally enrolled without regard to their ages.

Q. I am a Government employee and so is my husband. How do we enroll?

A. You may each enroll individually or one of you may enroll for the family. If you have children and one of you enrolls for the family, your children would also be covered. If you each enroll individually, your children would not be covered.

Q. My post of duty is outside the United States. May I enroll?

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* News release dated September 29, 1959.

A. Yes. Even if the Government provides free medical facilities for you, you may wish to enroll in order to cover your wife and children if they are located in the states.

PLANS

Q. What kind of health benefits plans will be offered?

A. Every employee will have a choice between two types of Government-wide plans. One will be the service benefit type and the other will be the indemnity benefit type.

Many employees will have a further choice. Instead of joining one of the Government-wide plans, they will be able to enroll in an employee-organization plan or in a group-practice prepayment plan or in an individual-practice prepayment plan.

Q. What is the Government-wide service benefit plan?

A. This is one of the 2 Government-wide plans which any employee may join. It is a plan provided through Blue Cross-Blue Shield organizations and is similar to the kind of plan furnished by Group Hospitalization, Inc. and Medical Service of the District of Columbia. It is called a "service benefit plan" because it works on the principle of paying benefits directly to the doctor or the hospital which supplies the service to you.

Q. What is the Government-wide indemnity benefit plan?

A. This is the other Government-wide plan which any employee can join. It is the type of plan which is usually provided by commercial insurance companies.

It works on the principle of paying cash benefits directly to you—in other words, indemnifying you—although, usually, arrangements can be made for the plan to pay the hospital or doctor directly.

Q. What is an employee-organization plan?

A. There are several national employee organizations, such as the American Federation of Government Employees and the National Association of Letter Carriers, which sponsor health benefits plans for their members. The Civil Service Commission may approve such plans and any employee who is a member of an organization that sponsors a plan approved by the Civil Service Commission may enroll in the approved plan and get a Government contribution toward its cost.

Q. What is a group-practice prepayment plan?

A. There are a limited number of such plans. They operate only in certain areas, for example, the Group Health Association in Washington, D. C., the Health Insurance Plan in New York, and the Kaiser Foundation Health Plan in California. These plans have their own medical center or centers and their own doctors who practice as a group. If you live in an area where there is a group-practice prepayment plan and if it is approved by the Civil Service Commission, you may choose to join it instead of one of the other plans.

Q. What is an individual-practice prepayment plan?

A. This is a plan where doctors agree to accept regular payments from the plan instead of the usual charge to the patient. Like the group-practice plans, they operate only in certain areas. An example of these plans is the Group Health Insurance Plan in the New York City area. If you are in a locality which has such an approved plan, you may choose to join it instead of one of the other plans.

BENEFITS

Q. What benefits will each of the plans offer?

A. The law does not spell out the exact benefits for any of the plans so this question cannot be specifically answered at this time. The law does require each of the 2 Government-wide plans to offer the employee a choice or option between 2 levels of benefits.

The employee organization plans and the group- and individual-practice prepayment plans may or may not offer options between various levels of benefits.

Q. What will be the difference between the 2 options offered by each of the Government-wide plans?

A. There will be 2 main differences. First, one option will offer lesser benefits than the other, and second, the option with lesser benefits will also cost less.

However, all options of the Government-wide plans will include both "basic health" and "catastrophic" coverage.

Q. What is meant by "basic health" coverage which each of the options under the Government-wide plans must include?

A. This is the kind of coverage most people now have. It gives some protection against the more common kinds of hospital and surgical expenses.

Q. What is meant by "catastrophic" coverage which each of the options under the Government-wide plans must include?

A. Catastrophic coverage gives some protection against the more unusual and heavy expense of a serious or prolonged illness. It often includes such costly items as long periods of hospitalization, expensive operations, private nurses, medical care received at home, drugs and medicines, medical supplies and equipment, etc.

Q. Will the employee-organization plans and the group- and individual-practice prepayment plans include catastrophic coverage?

A. Many of these plans may very well do so, but unlike the Government-wide plans, the law does not require them to include catastrophic coverage.

Q. What is the reason for having various plans and options?

A. There are 2 main reasons. First, it allows employees free choice of the kind of plan they prefer, for example, service benefits or indemnity benefits. Second, some employees may feel that they do not need as much protection and should not have to pay for coverage that they do not want. With the various plans and options you will be able to choose one which best fits your needs.

Q. How will I be able to decide which option or plan is best for me?

A. Before the law becomes effective, you will be given literature explaining the benefits of each plan and each option. You will then be able to select the plan or option you like best.

Cost

Q. I have health benefits now. Will I be able to save any money if I enroll under the new law?

A. If you enroll in a plan or option with approximately the same benefits you now have, you would save money because the Government will be contributing part of the cost you now pay.

However, many employees will be able to enroll in a plan which offers much better benefits and will cost more than the plans they now have. But, because the Government will be contributing part of the extra cost, they will be paying approximately the same amount as they do now. Thus, such employees will be getting much better benefits at little or no additional cost to themselves.

Q. How much will the Government contribute toward the cost of my coverage?

A. Except in the situation explained in the next question, the Government will contribute not less than these specified amounts:

$2.80 a month if you enroll for yourself only;

$6.75 a month if you enroll for yourself and family.

[Note: The amounts mentioned here and in the next questions do not apply to a female employee who enrolls for self and family which includes a nondependent husband. If you are such a female employee, see later questions which apply to you.]

Q. In what kind of situation would the Government contribute less than the $2.80 or $6.75 a month mentioned in the previous question?

A. If the total charge for the plan in which you enroll is less than twice the specified Government contribution—that is, if the charge is less than $5.60 or $13.50 a month—then the Government will contribute ½ the cost of your enrollment. For example: If you enroll for yourself and family in a plan the total cost of which is $10 a month, the Government would contribute $5 and you would contribute $5; if you enroll for yourself only in a $4 a month plan, the Government would contribute $2 and you would contribute $2.

Q. What will be the monthly charge of the various plans in which I will be able to enroll?

A. The exact charge for each plan will not be known until the specific benefits which each plan will offer have been agreed upon.

However, it is expected that at least one option in the 2 Government-wide plans will offer both basic health and "catastrophic" benefits at a total charge of about $13.50 a month for a family enrollment so that you will pay about $6.75 and the Government will pay $6.75. Similarly, at least one of these options will cost about $5.60 a month for a self-only enrollment so that you would contribute about $2.80 and the Government would contribute $2.80.

The other options of the Government-wide plans will offer greater benefits and therefore will cost more.

Q. Would the Government always contribute ½ the cost of the plan?

A. In many instances, as in the examples in the 2 previous questions, it would. However, if you enroll in a plan the total monthly cost of which is more than twice the specified Government contribution—that is, if the charge for the plan is more than, say, $5.60 for a self-only enrollment or $13.50 for a family enrollment, then the Government will still make its specified contribution and you will pay the difference. For example: If you enroll for yourself and family in a plan the total cost of which is $15.00 a month, the Government would make its specified contribution of $6.75 and you would contribute $8.25; if you enroll for yourself only in a $6.00 a month plan, the Government would contribute $2.80 and you would contribute $3.20.

Q. How much will the Government contribute for a female employee?

A. The Government's contribution for a female employee will be on exactly the same basis as for a male employee under the following conditions:

— If she enrolls for herself only.

— If she enrolls for herself and family and the family does not include a husband or does include a dependent husband.

Q. How much will the Government contribute for a female employee under a family enrollment which includes a husband who is not dependent?

A. In such a case the Government will contribute not less than $3.90 a month if the total charge for the family enrollment is $13.50 or more a month. The employee will contribute the difference between the $3.90 and the total charge.

If the female employee enrolls in a plan the total charge for which is less than $13.50 a month for the family enrollment, the Government will contribute 30 per cent of the charge and the employee will contribute 70 per cent.

Q. How will I contribute my share of the cost?

A. Through payroll deductions. Depending on how often you are paid, the proper percentage of the monthly charge will be withheld from your salary each pay period.

Q. Is there any guarantee that the cost of the plan in which I enroll will not increase?

A. No. Eventually the cost may increase because the plan may provide additional benefits or because the cost of paying for hospital and medical care may go up.

Q. Is there any maximum limit on the amount the Government can contribute?

A. Yes. The approximate maximum monthly amounts the Government can contribute are:

$3.95 for self-only enrollment;

$9.55 for a family enrollment;

$5.60 for a family enrollment which includes a nondependent husband.

However, it is expected that these limits will have no effect on the Government's contribution for a number of years and then only if the cost of a plan keeps going up to the point where the Government's contribution reaches these limits.

Q. Will I be able to continue my health benefits coverage after I retire?

A. Yes, if you meet certain requirements.

Q. What are the requirements I must meet?

A. There are 5 requirements, all of which you must meet. They are as follows:

1. You must retire under the Civil Service Retirement System or some other system for civilian employees of the Federal or District of Columbia Government.

2. You must retire after the date the health benefits program became effective in your employing office, that is, after the first day of your first pay period which began on or after July 1, 1960.

3. When you retire, you must have been enrolled in an approved plan for at least the shorter of the following 2 periods of time: (a) the 5 years of service immediately before your retirement, or (b) all your service between the time you first had the opportunity to enroll and the time you retire.

4. You must retire after at least 12 years of service or on account of disability. (The 12 years of service can include military service, but must include at least 5 years of civilian service.)

5. You must retire on an immediate annuity;

that is, the beginning date of your annuity must be not later than 1 month after your separation from service.

Q. If I should die, would my wife (or husband) and children be able to continue the health benefits coverage?
A. Yes, if they meet certain requirements.

Q. What are the requirements they must meet?
A. There are 2 requirements:
1. At the time of death, you must have been enrolled for yourself and family and have completed 5 years of civilian service.
2. Your wife (or husband) and children must be eligible to receive a survivor annuity from your retirement system.

Q. If an employee- or survivor-annuitant continues the health benefits coverage, does he have to pay for it?
A. Yes. However, he does not have to pay more than an employee who is enrolled in the same plan.

Q. Will the Government contribute to the cost of an annuitant's enrollment?
A. Yes—on the same basis as to an employee's.

Q. How will an annuitant pay his portion of the enrollment cost?
A. It will be withheld from his monthly annuity.

Q. Will an annuitant be entitled to the same benefits as an employee?
A. Yes. All plans will provide the same benefits for annuitants as they do for employees.

Miscellaneous

Q. If I enroll in one plan, will I later be able to transfer to another plan?
A. Yes, under certain conditions which will be determined later.

Q. If I enroll for myself only, will I later be able to change to a family enrollment?
A. Yes. You will also be able to change from a family enrollment to a self-only enrollment.

Q. If I should leave Federal employment, will I be able to keep my coverage?
A. Yes. You will be able to convert your group coverage to individual coverage. Of course, the Government will not contribute any longer and you will have to pay the total cost of the coverage yourself.

Q. If I go on leave without pay, will I be able to continue my coverage?
A. Yes, for up to 1 year, under certain conditions to be determined later.

Q. If I enroll in a plan, will I be given a certificate?
A. Yes, you will be given a certificate or other document which will summarize the benefits to which you are entitled and how to apply for them.

THE LOST CHORD CLUB

The Lost Chord Club of Washington, D. C. was organized in 1946 primarily to assist in the rehabilitation of persons who, due to the removal of the larynx, have lost their natural voices. Members of this Club are all laryngectomees residing in the greater metropolitan area of Washington, D.C. Honorary members are professional or vocational men and women whose sustained interest in promoting the welfare of laryngectomees has been clearly demonstrated. This Club, like similar clubs in most of the large cities throughout the world, is affiliated with the International Association of Laryngectomees, with headquarters in New York City. This Club also works closely with the District of Columbia Division of the American Cancer Society.

Meetings are held monthly, June, July and August excepted. Practice sessions are held weekly, when conditions warrant. At these meetings members promote, by mutual assistance, the attainment of post-laryngectomy speech, or, in the alternative, speech by use of artificial larynges, in order to return Club members to normal social and vocational activities.

The Club has a Visitation Committee composed of members who have developed usable speech. When requested by physicians, relatives, or other interested persons, members of this Committee make visits preoperatively and postoperatively to persons about to undergo or who have had a laryngectomy. They also visit periodically groups of medical students and student nurses for informal question-and-answer periods. These visits are made entirely on a

(*Continued on page 128*)

On the Lighter Side

When Sir Walter Scott penned, "Love rules the court, the camp, the grove, and men below, and saints above; for love is heaven and heaven is love," he must have been thinking of Leap Year when the course of true love never did run so smooth. For Leap Year is dependent on its very existence for that one extra added day in February. This oddness in a month of the usual 28 days gives tacit permission for the Sought-After to become the Seeker, for the Sly to become Bold, for the Uninitiated to take the Initiative, and for the confirmed bachelors to run for shelter and hide. The cowards!

Leap Year is the catalyst that triggers the love mechanism to become the emotion that produces the following end result: a feeling of mutual tenderness and affection with a deep sense of heartfelt pleasure in experiencing such a feeling. The beloved becomes most desirable even though in reality there may be no actual beauty or attractiveness present. The lover's perception is narrowed and attention is focused on the loved one, thereby leaving many physical and character defects unnoticed. The good traits stand out in the lover's mind like the proverbial sore thumb. There is exquisite sweet pleasure in being together, in sharing experiences, or in just gazing into each other's eyes. The same experience performed alone is a bore unless the remembrance of its sweetness shared is brought to mind. There is a strong basic desire for intimacy between lovers, both psychologic and physical. There is a yearning, burning desire to know as much as possible about every wakened minute lived by the loved one. There is a feeling of generosity, of wanting to give, of wanting to afford pleasure. There is a growing honesty in relationship with each other in the well adjusted lovers. There is the ability of love to transcend the individual ego. There is that love relationship of two people wanting to greet, protect, and touch each other—maybe with a kiss. For after all what is a kiss? A kiss is the admission of love, the promise of love which chooses the lips instead of the ear to confess—and, as the poet expresses it, the tasting of each other's souls.

The physical symptoms of a person in love are characteristic. The eyes brighten, the pulse quickens, the senses sharpen, the muscle tone improves, and there is an awakened desire to look one's best, as exemplified by the disheveled boy who begins to spruce up the minute he falls in love.

There are common symptoms in lovers that develop in the strangest way. One suddenly develops a profound benevolence and tolerance toward other people's ideas and actions. Everyone seems to be more friendly, more worthy. Little petty annoyances, in friends and family, that used to aggravate now become unimportant. You just couldn't care less! Actually a lover seems to love everybody.

We are acquainted with the psychosomatic ills that can become so intolerable in those who are frustrated in their desire to love and be loved. The nervous system is affected and that in turn affects all the organs and systems. Soon the individual is showing psychic changes over the torments of an unrequited love, or a love whose consummation and acceptance are prevented. The only cure for this sickness is to fulfill the desire either by honest personal adjustments, or, if this is impossible, by sneaking skullduggery; because if this love malady progresses from the frustrated stage to the melancholy stage, then the lover becomes weak and woebegone, full of physical disabilities and mental problems. The ill-defined restlessness, the morbid disposition, the sense of personal inadequacy, the constant dissatisfaction, the frequent emotional outbursts with the free-falling tears and the jumpy stomach are all part of the emotional problem.

Love—what a volume in a word! A seventh heaven in a smile. Lightning striking in a touch. A turning inside out in one ecstatic moment. Love, that leaves one breathless with a racing pulse and yet can relax the inner turbulence to drowsiness. Love is a balance between the physical and the emotional factors that refuses to remain unbalanced for long. Even the fear of eventual fire and brimstone in the hereafter, or the narrow concept that love is sin, has not been able to harness and control this all-powerful emotion.

Why in the world did anyone invent Leap Year anyway!

(*Continued on page 128*)

News and Personals

MEETINGS

The Second Clinicopathologic Conference, sponsored by the Committee on Postgraduate Education of the Medical Society of the District of Columbia, will be held on Wednesday, March 9, at 8 p.m., in the Medical Society's auditorium. Dr. Oscar B. Hunter, Jr., Director of the Oscar B. Hunter Memorial Laboratory, is arranging the program. Clinical discussion will be led by Dr. Richard F. Manegold, Director of Medical Education, Sibley Memorial Hospital.

The Second Annual Conference of the Washington, D. C. Area Council on Alcoholism will be held at the Hotel Statler-Hilton, March 18, beginning with a luncheon at 12:30 p.m. The theme for the meeting will be "The Alcoholic Employee." Dr. Harrison M. Trice, Assistant Professor of Industrial and Labor Relations at Cornell University, will be the luncheon speaker and will be moderator for a panel discussion during the afternoon in which participants will be local authorities in the field of alcoholism. Dr. Anthony Zappala, formerly Chief of the D. C. Alcoholic Rehabilitation Clinic, is the Program Chairman. Physicians and others interested in the program are invited to attend. Tickets for the luncheon, at $4.00 each, may be secured by sending request for reservation with check to the Council, 517 Wyatt Building, Washington 5, D. C.

The Council on Alcoholism furnished a grant to The Pastoral Institute for a training seminar on alcoholism for clergymen, which was conducted during 10 weekly sessions, from October 20 to December 22. The faculty included Dr. Zappala; Dr. Jean H. Menetrez, Chief of the Alcoholic Rehabilitation Clinic; and the Reverend Richard Williams, Chief of the Division of Alcoholic Studies of The Pastoral Institute. The sessions were held in the Medical Society's building.

The third and last of this year's **Combined Pediatric Centers' Conferences** will be held in the Joseph Wall Memorial Auditorium in Children's Hospital, March 24, at 8 p.m. The Department of Pediatrics of Georgetown University Hospital will present the topic for discussion, "Renal Physiology in the Premature." All physicians are invited to attend.

GENERAL NEWS

The Executive Board of the Medical Society of the District of Columbia met, December 28, at the Cosmos Club, with Dr. Preston A. McLendon, Chairman, as host. At this, his last meeting as Chairman of the Board, Dr. McLendon presented the Society with a framed and enlarged copy of a statement entitled, "Penalty of Leadership," which was accepted with thanks.

Dr. McLendon read a statement summing up the activities of the Council on Rehabilitation, which he has chairmanned during the past 3 years of its existence. He paid tribute to the members of the Council and especially to Miss Josephine Albrecht for "her most loyal and generous devotion to the project." Dr. McLendon stated that the Council would be terminated early in the year. The statement was accepted with thanks and Dr. McLendon commended for the leadership he had given the project.

Dr. Lester D. Bibler, Chairman of the Medical Practices Committee of the American Medical Association, had written that the Committee was desirous of holding a regional meeting in Washington, D.C., March 25, 26 and 27, for the purpose of discussing Relative Value Studies. There would be no expense to the local organization other than an invitation to members of the Society to attend the meeting. The request was approved and the Secretary instructed to extend an invitation to the Committee to hold its regional meeting in Washington.

The Board approved the selection of Drs. Worth Post Baker, Horace H. Custis, Jr., and Edgar E. Quayle as candidates for appointment to the D. C. Board of Examiners in Medicine and Osteopathy.

It was voted that Mr. Warren E. Magee, the Society's Legal Counsel, be requested to represent the Society at the Medico-Legal Conference in Chicago, sponsored by the AMA, to be held on May 20 and 21.

Dr. Edward W. Nicklas, Chairman of the Society's Committee on Medical Care, was asked to represent the Society at the Annual Professional Relations Conference of Blue Shield, to be held in Chicago, February 1–3.

At the conclusion of the meeting the members of the Board expressed their appreciation to Dr. McLendon for his services to the Society over a period of several years and presented him with a gift.

This issue of the MEDICAL ANNALS contains an appeal for the **services of ophthalmologists and psychiatrists,** with moderate compensation, for the Children's Center in Laurel, Md. (see Correspondence, page 124). Officers of the Medical Society are hopeful that there will be a response to this appeal for assistance in a humanitarian endeavor.

The Medical Staff of the Washington Hospital Center has elected new officers for 1960. Dr. J. Spencer Dryden, Chairman of the Department of Ophthalmology, was elected President of the staff, succeeding Dr. Ralph M. Caulk. Dr. Dryden is also head of the Department of Ophthalmology at Doctors Hospital and Chairman of the Committee on Public Policy of the D. C. Medical Society.

Dr. Edgar W. Davis was elected First Vice President; Dr. Francis L. Wenger, Secretary; and Dr. Forrest V. Schumacher, Assistant Secretary. Reelected to office were Dr. Thomas W. Mattingly, Second Vice President, and Dr. Garnet W. Ault, Treasurer.

A new **Hospital Advisory Council to the District Commissioners** has been created to provide a group with advisory authority to review pending proposals for revising the District's hospital regulations. This new group replaces the Hill-Burton Advisory Council, whose authority was not broad enough to cover advice on hospital construction and operation.

Four of the 9 appointees to the Council are members of the District Medical Society. They are: Dr. Herbert P. Ramsey, for 3 years, to represent the interests of hospital service consumers; Dr. Josephine J. Buchanan, Chief of Physical Medicine and Rehabilitation at D. C. General Hospital, for 2 years, to represent Government agencies concerned with rehabilitation; Dr. William P. Herbst, for 3 years, and Dr. Jesse A. Keene, for 1 year, representing the medical profession.

The Excerpta Medica Foundation has introduced a new concept in medical communication, *Voice of Medicine*, the first bi-monthly recorded medical journal. This recorded publication will cover all fields of medicine throughout the world and will enable the subscriber to hear on his record player the actual voices of the leading scientists and practitioners of the present time. On-the-spot recordings of conferences, congresses, symposia and special panels will be prepared under the direction and supervision of the editorial staff of the Excerpta Medical Foundation.

Voice of Medicine will be produced as a 12-inch LP hi-fidelity recording in a special double-fold album cover. Included will be a band-by-band index to facilitate choice of subject, a synopsis of which will be printed inside the album. The records can be played on present equipment. Number 1 of the first volume will be issued in April. A subscription form may be secured by writing to Recordomed, Inc., 405 Lexington Avenue, New York 17, N.Y.

Dr. Howard C. Pierpont, Chairman of the Research and Training Committee of the **Washington Heart Association**, advises that the WHA is ready to give financial support to competent investigators for research and to young physicians who need assistance for further training. The Association believes that such support to graduates and undergraduates in the field of medicine is the best way to combat cardiovascular disease in the community. Leaflets describing their Research Grants-in-aid and Clinical Fellowships are available from the Association's headquarters at 1000 Connecticut Avenue, N.W., or by telephone, Sterling 3-1397.

The Public Health Service has published a brochure entitled, "Little Strokes— Hope through Research," which tells the story of "stroke" patients who have survived their attack to live long, useful lives. The booklet reviews research currently being conducted at the Public Health Service's National Institute of Neurological Diseases and Blindness and summarizes similar research supported through grants to non-Federal hospitals and medical centers. Listed as PHS Publication No. 689, single copies are available without charge from the National Institute of Neurological Diseases and Blindness, Bethesda 14, Maryland. Quantity orders cost $7.50 for 100 copies and are obtainable from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

Several staff changes in the **Bureau of Mental Health of the D. C. Department of Public Health** have been announced. Dr. David A. Lanham and Dr. Irving L. Berman have joined the staff of the Legal Psychiatric Services Division.

Dr. Lanham has been on the staff of St. Elizabeths Hospital since 1955, beginning with a year of internship, 3 years as resident in psychiatry, and staff psychiatrist for the past 6 months. He received his medical degree from St. Louis University.

Dr. Berman, a graduate in medicine of Middlesex University, Waltham, Mass., in 1940, became a resident in psychiatry at St. Elizabeths Hospital in 1955 and was appointed staff psychiatrist in 1958.

Dr. George Chornesky has been appointed Acting Chief of the Alcoholic Rehabilitation Division, effective January 11, succeeding Dr. Jean H. Menetrez, who has been Chief of the Division. Dr. Menetrez will continue to work with the Bureau as staff psychiatrist in the Adult Mental Health Division on a part-time basis in order to give him more time to devote to his private practice.

Dr. Chornesky, a native of Lynn, Mass., received his degree in medicine from the Faculty of Medicine, University of Geneva, Switzerland, in 1951. He has served on the faculty of Tufts University School of Medicine in the Department of Psychiatry and was staff psychiatrist at St. Elizabeths Hospital from 1956 to 1957. He joined the D. C. Health Department as staff psychiatrist in the Legal Psychiatric Services in 1957 and joined the Alcoholic Rehabilitation Division in 1958.

DR. ALFARO GREETS PARAMEDICAL GROUP

DR. VICTOR R. ALFARO, President of the Medical Society of the District of Columbia, was present, January 15, at the Symposium for Doctors' Office Staffs to deliver an official welcome.

Drs. Berman, Chornesky, and Menetrez are Active members of the D. C. Medical Society.

Two new sections of the Medical Society which were approved at its Annual Business Meeting, November 22, have adopted Constitutions and By-laws and elected officers. To serve the **Section on Allergy** are:

Dr. William A. Howard, *Chairman*; Dr. Harry A. Horstman, Jr., *Vice Chairman*; and Dr. Audrey M. Connor, *Secretary Treasurer.*

These officers will serve for one year. The next election will be held in November 1960.

First officers for the new **Section on Plastic Surgery** are:

Dr. William C. Meloy, *Chairman*; Dr. Arthur Dick, *Vice Chairman*; and Dr. Alfred J. Suraci, *Secretary-Treasurer.*

The Academy of Medicine of Washington, D. C. has elected new officers for 1960. They are:

Dr. Joseph H. Roe, *President*; Dr. Errett C. Albritton, *Vice President*; Dr. Angus Griffin, *Secretary*; and Dr. Robert C. Cook, *Treasurer.*

The Academy meets 3 times a year at the Cosmos Club.

New officers of the **Arlington County Medical Society** are:

Dr. Michael A. Puzak, *President-elect*; Dr. Sigmund Newman, *Vice President*; Dr. Howard O. Mott, *Secretary*; and Dr. Robert B. Neu, *Treasurer*.

Dr. Robert L. Norment, an Associate member of the D. C. Medical Society, has taken office as President for 1960. Dr. Neu is also an Associate member of the Society.

The Prince Georges County Medical Society has elected new officers for the coming year, namely:

Dr. John S. Haught, Mt. Rainier, *President*; Dr. Ronald S. Fleischer, Hyattsville, *Vice President*; Dr. Albert Roth, Riverdale, *Secretary*; and Dr. Norman D. Comeau, Mt. Rainier, *Treasurer*.

All the officers are Associate members of the D. C. Medical Society.

Dr. Joseph K. Owen, who has served for the past year as **Administrator of D. C. General Hospital**, resigned his position, effective January 29. He will remain at the Hospital for several months in order to complete a manual of administrative practices and procedures.

Mr. William W. Baird, Associate Administrator of the Hospital, in charge of budget and fiscal affairs, was appointed by the Commissioners to succeed Dr. Owen. Mr. Baird was a junior management assistant with the Civil Aeronautics Board and an analyst in the District Management Office before going to the Hospital in 1955 as registrar.

Glenn Dale Hospital, which has served the District of Columbia for treatment of TB patients, has begun admitting indigent patients with other chronic ailments. Most of the new patients will come from the District of Columbia General Hospital, which will release patients to Glenn Dale to provide progressive treatment after the acute phase is past. The chronic cases, which will be mainly from the general medicine and surgery categories, will be physically segregated from the TB patients.

The Wilfred Lacy Goodwyn Wing of Columbia Hospital for Women was dedicated, December 16, 1959, in special ceremonies. The wing, part of an extensive building program at the Hospital, has been named in memory of the late president of the Hospital's Board of Directors.

Walter Reed General Hospital resumed its original name on January 1. The Hospital was first established under this name in 1909. In 1923, when the installation was expanded to include medical research, the medical school and other facilities, the whole was named the Army Medical Center. The public never dissociated Walter Reed from the Hospital's name, so in 1951 the Center was designated The Walter Reed Army Medical Center. The Hospital, a unit of the Center, now reverts to its original name.

George Washington University Hospital will benefit by a research grant in the amount of $57,300 from the National Foundation, to be used by the Hospital's Poliomyelitis Respiratory and Rehabilitation Center. This sum is part of grants totaling more than 1½ million dollars made possible by public contributions to the New March of Dimes.

Dr. Wilhelm C. Hueper, research scientist at the National Cancer Institute, was announced as the winner of the $1,000 Anne Frankel Rosenthal Award, December 27. The Award, administered by the American Association for the Advancement of Science, recognized Dr. Hueper for his pioneering studies in environmental causes of cancer. Since 1948 he has headed the Institute's research on environmental cancer.

Dr. John Paul North, of Dallas, Texas, became **Director of the American College of Surgeons** on January 31, succeeding Dr. Paul R. Hawley, Director of the College since 1950.

Dr. North has been Chief of the Surgical Service of the Veterans Hospital in Dallas since 1955 and Professor of Clinical Surgery at Southwestern Medical School, University of Texas, since 1946. He has been a member of the College's Board of Governors since 1954.

PERSONALS

Dr. Joseph R. Bogan was one of 4 alumni of the old Central High School who were honored by the Alumni Association at the Shoreham Hotel, December 26. Dr. Bogan, a member of the Class of 1897, received a Certificate of Distinction. This was the School's fiftieth reunion, and 400 alumni and guests were present for the occasion.

Dr. Bogan, a Life member of the District Medical Society, is a distinguished anesthesiologist. A graduate of George Washington University School of Medicine (1907), he served on the faculty of the School as Clinical Professor of Anesthesiology from 1927 to 1932. For many years he was on the staff of Garfield Memorial Hospital as anesthetist, with courtesy privileges in his field at most of the other hospitals. He is a diplomate of the American Board of Anesthesiology, member and Past President of the Southern Society of Anesthesiologists, the Potomac Society of Anesthesiologists, and the Hippocrates-Galen Medical Society. He was Chairman of the Section on Anesthesiology of the D. C. Medical Society in 1947–48. He is a Fellow of the American College of Anesthesiology and the International College of Anesthesiology, and a member of other scientific organizations in his field and in the field of surgery.

Dr. Peter D. Comanduras, Secretary-General of MEDICO, received the Phi Delta Epsilon medical fraternity's Annual Distinguished Award at a banquet at the Mayflower Hotel, December 30. The award recognized his services as officer of an organization which is devoted to sending medical task forces to underdeveloped and needy areas of the world.

Dr. John W. McTigue has been elected to the Board of Trustees of the D. C. Society for the Prevention of Blindness.

Dr. Marvin I. Mones, of Chevy Chase, has been named chairman of the medical committee to raise funds for the proposed Holy Cross Hospital in Silver Spring, Md. Serving with him as vice chairmen will be Drs. James A. Roberts, John J. Brady, John J. Curry, Blaine H. Eig, John P. Haberlin, Henry W. Jaeger, J. Thomas Schnebly, and Arthur J. Wilets, all of Silver Spring; Dr. Henry P. Laughlin, of Chevy Chase; and Dr. Stanley I. Wolf, of Wheaton. All of these physicians, except Drs. Jaeger and Wilets, are Associate or Affiliate members of the District Medical Society.

Dr. Joseph W. Peabody, Jr., was elected Secretary-Treasurer of the Southern Chapter of the American College of Chest Physicians at its annual meeting in Atlanta, Ga., November 15–16.

MEMBERSHIP

The following applicants for membership were duly elected to membership by the Executive Board, December 28, 1959, in accord with Chapter II, Article VIII, of the Constitution and By-laws of the Society.

Active Members

Garlick H. Bagby, 4200 Cathedral Avenue, N.W.
William G. Battaile, 915 19th Street, N.W.
Arvine M. Bradford, 915 Rhode Island Avenue, N.W.
Franklin T. Brayer, 3800 Reservoir Road, N.W.
Robert F. Dyer, 3813 Garrison Street, N.W.
Erman W. Edgecombe, 453 Park Road, N.W.
Angelina Guido, 2801 Quebec Street, N.W.
John F. Hannon, 1302 18th Street, N.W.
Leonhard J. Hantsoo, 701 Maryland Avenue, N.E.
Roy T. Lester, 1523 L Street, N.W.
Emile Coleridge Nash, D. C. General Hospital
George L. Rivat, 2131 Florida Avenue, N.W.
Herbert L. Tanenbaum, 9812 Belhaven Road, Bethesda, Md.
George S. Vouvalis, 1726 Eye Street, N.W.
Marvin Wadler, 1025 Vermont Avenue, N.W.

Associate Members

Vernon H. Balster, 631 E Street, N.W.
Thomas Fulton Cleary, 5556 Silver Hill Road, S.E.
Scholem P. Feldstein, 1475 Euclid Street, N.W.
Anthony S. Garofano, 3203 Queenstown Drive, Mt. Rainier, Md.
George A. Higgins, Jr., Veterans Administration (Mt. Alto) Hospital
George Hunt Mitchell, Jr., 5900 Anniston Road, Bethesda, Md.

Ahmet Macit Ozbey, Columbia Hospital for Women
Amos Townsend Pagter, Jr., 1506 Missouri Avenue, N.W.
George Szele, 2125 Bancroft Place, N.W.
Nelson Monroe Tart, 115 Hillwood Avenue, Falls Church, Va.
Stanley A. Ziemnowicz, 3800 Reservoir Road, N.W.

Affiliate Member

Nicholas M. Azzato, 1736 Eye Street, N.W.

Resident-Intern Members

Bernard L. Albert, 2515 K Street, N.W.
David Hodges Dabney, 2705 13th Street, N.W.
George T. Economos, 2206 Eye Street, N.W.
Daniel V. Voiss, 4709 Edgefield Road, Bethesda, Md.

The following applicants for membership will be voted on at the meeting of the Executive Board, February 23, 1960.

For Active Membership

Silas B. Hays, State University of Iowa—1928
Gerald A. Hopkins, University of Cincinnati—1929
Maesimund Banning Panos, Ohio State University—1957
John F. Potter, Georgetown University—1949

For Associate Membership

James Langdon Foy, Loyola University—1949
C. Lewis Parker, George Washington University—1958

For Affiliate Membership

James W. Love, Medical College of Virginia—1928

For Resident-Intern Membership

Virginia A. Duggins, George Washington University—1955
Irvin S. Jaffee, State University of New York—1956
Gerald D. Schuster, University of Maryland—1956

Recent changes in membership status:

Reinstated to Active

Frederick D. Drew

Active to Associate

David Goldenberg
A. Genevieve McEldowney
John J. Nolan
Manson B. Pettit
Ashby W. Smith

Affiliate to Associate

Thomas G. Edison

Resident-Intern to Associate

Joseph E. Bartkowski

Resigned

Active

Harry A. Giltner
M. Howard Skolnick

Affiliate

Forrest M. Swisher

Associate

John M. Baber
Robert A. Bier
Tsung O. Cheng
Paul Kaufman
Aims C. McGuinness
Joseph P. McMahon
Lee B. Snow
Robert Warthen

Thirteen New Life Members

Chapter II, Article III, of the Constitution of the Society, reads as follows:

Life members shall be Active members who have been Active members for a total of forty years. They shall have all of the privileges of Active membership and shall be exempt from paying dues and assessments.

Our honor roll now numbers 67. The congratulations of the Society are extended to:

Seniority Number		*Date of Membership*
729	Edward Lewis	January 10, 1920
735	Maurice A. Selinger	January 14, 1920
741	Walter W. Price	February 12, 1920
743	Harry A. Spigel	February 21, 1920
747	Herbert H. Schoenfeld	March 3, 1920
758	Clarence J. Fernald	June 18, 1920
761	Charles J. Bowne	November 6, 1920
762	Jack A. Connor	November 8, 1920
767	John Chester Brady	November 11, 1920
768	Paul S. Putzki	November 16, 1920
770	Albert E. Marland, Sr.	November 24, 1920
772	Raymond K. Foxwell	November 29, 1920
775	Samuel A. Alexander	December 8, 1920

who have for forty years been on the roster, meeting all dues and assessments and lending their support to the Society by frequent attendance. Their status is now elevated to Life membership.

CORRESPONDENCE

LAUREL, MD., December 3, 1959

TO MR. WIPRUD:

This is a request for your assistance in what is steadily becoming a critical medical problem here at the Children's Center located near Laurel, Maryland.

As you undoubtedly know, the Children's Center is a District of Columbia institution for mentally retarded children and adults and juvenile delinquents. The total population is expected to surmount 2,000 within a few months. The medical staff includes 4 physicians, 17 nurses, and approximately 100 nursing assistants. This has proven to be adequate with the support of the D. C. General Hospital facilities, in most areas. However, there are two critical areas in which we are completely unable to provide the necessary facilities, ophthalmology and psychiatry. In the former area, as you can readily realize, providing good ophthalmologic care is a great aid in the rehabilitation of delinquent children and of considerable assistance in enabling the mentally retarded individuals to utilize their abilities to the fullest extent. In this area we desperately need consultant services but can pay only $40.00 per visit. If you might know of any ophthalmologist who would be interested in assisting us, it would be greatly appreciated. Although the remuneration is inadequate I am sure that the thanks which he would see in these children's eyes, and in those individuals here at the institution who attempt to help them, would more than compensate for the difference.

In the field of psychiatry we are extremely desirous of finding a psychiatrist who would be interested in a full-time position. The salary for this position is only $11,000 per annum, which has made it extremely difficult to fill. However, in working with the juvenile delinquents he would be meeting one of the foremost challenges in our current society. There is also consultant money available for psychiatric services at the same rate of $40.00 per visit.

If you are aware of any interested specialists in these two fields I would greatly appreciate your advising me of them or have them contact me at their convenience.

Thank you for your assistance in this matter.

Sincerely yours,
WILFRED R. EHRMANTRAUT, M.D.
Medical Director, Children's Center,
District of Columbia Department
of Public Welfare

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interest of our readers and as space permits. Physicians are urged to submit reviews of additional books which, in their opinion, merit comment.

1846–1958 Digest of Official Actions of the American Medical Association; F. J. L. BLASINGAME, M.D., Executive Vice President. Price, $5.00. Pp. 779. Chicago: American Medical Association, 1959.

Observations on Direct Analysis—The Therapeutic Technique of Dr. John N. Rosen. MORRIS W. BRODY, M.D., with Forewords by John N. Rosen, M.D., and O. Spurgeon English, M.D. Price, $2.95. Pp. 104. New York: Vantage, 1959.

Symposium on Glaucoma. Transactions of New Orleans Academy of Ophthalmology—1957. Edited by WILLIAM B. CLARK, M.D., F.A.C.S., Diplomate, American Board of Ophthalmology; Professor of Clinical Ophthalmology, Tulane University School of Medicine, New Orleans, La.; Chairman, Advisory Council on Ophthalmology, American College of Surgeons; Member, American Ophthalmological Society; Member, American Academy of Ophthalmology and Otolaryngology. JOE M. CARMICHAEL, M.S.J., Associate Editor. With 8 contributors. Price, $13.50. Pp. 314, with 99 figures, including 2 in color. St. Louis: Mosby, 1959.

Neurology of Infancy. ANATOLE DEKABAN, M.D., PH.D., Head, Section on Developmental Neurology, National Institute of Neurological Diseases and Blindness, National Institutes of Health, Bethesda, Md.; Consultant, Children's Hospital of the District of Columbia; Assistant Professor of Neurology, George Washington University Medical School, Washington, D. C. Price, $12.00. Pp. 388. Baltimore: Williams & Wilkins, 1959.

Laboratory Tests in Common Use, 2nd ed. SOLOMON GARB, M.D., Associate Professor of Pharmacology, Albany Medical College. Price (paper), $2.50. Pp. 185. New York: Springer, 1959.

Biopsy Manual. JAMES D. HARDY, M.D., Professor and Chairman of the Department of Surgery, University of Mississippi School of Medicine; JAMES C. GRIFFIN, JR., M.D., Assistant Instructor in Surgery, Administrative Chief Resident in Surgery, National Cancer Institute Trainee, University of Mississippi School of Medicine; AND JORGE A. RODRIGUEZ, M.D., Assistant Professor of Surgical Anatomy, The Department of Surgery, University of Mississippi School of Medicine. Price, $6.50. Pp. 150, with 54 illustrations. Philadelphia: Saunders, 1959.

The Physician and the Law, 2nd ed. ROWLAND H. LONG, Member, Massachusetts and New York Bars, Assistant Professor in Forensic Medicine, New York University Post-Graduate Medical School. Foreword by Milton Helpern, M.D., Chief Medical Examiner, New York City. Price, $5.95. Pp. 302. New York: Appleton, 1959.

ROSS T. McINTIRE, M.D.

(1889–1959)

Vice Admiral Ross T. McIntire, M.C., U.S.N. (Ret.), Executive Director of the International College of Surgeons since 1955, died unexpectedly in Grant Hospital, Chicago, December 8, 1959. He was formerly Surgeon General of the Navy and Personal Physician to the late Franklin D. Roosevelt.

Admiral McIntire was born in Salem, Oregon, August 11, 1889. He received his medical degree from Williamette University in Salem, now the Medical School of the University of Oregon, in 1912, following which he began private practice in Salem.

VICE ADMIRAL ROSS T. McINTIRE, M.C., U.S.N.

At the beginning of World War I, Dr. McIntire was commissioned an Assistant Surgeon in the Navy Medical Corps. After a number of stations, he was assigned to the Naval Hospital in Washington in 1931, where he performed added duties as an instructor in ophthalmology and otolaryngology at the Naval Medical School. Within 2 years he was on White House duty.

He was promoted to Commander in 1934 and to Vice Admiral 10 years later. From 1938 to 1946 he was Surgeon General of the Navy and Chief of the Bureau of Medicine and Surgery. For 10 years he was Personal Physician to President Roosevelt, a post he took in February 1935. The fact that he was a specialist in diseases of the eye, ear, nose and throat may have influenced his selection for the post, since President Roosevelt suffered from a sinus condition.

As Vice Admiral, he held the highest rank ever given a medical officer. Under his command the Navy Medical Department made its greatest expansion in history, as pointed out in his book "Doctors at War," published in 1945. He was decorated a number of times by the United States and other countries.

After retiring from the Navy in 1947, he served for 7 years as Chairman of the President's Commission for Employment of the Physically Handicapped. The same year he was appointed to direct the formation of the national blood program of the American Red Cross, a program he continued to serve for more than 8 years.

Admiral McIntire was an Honorary member of the Medical Society of the District of Columbia, a recognition conferred upon him by the Society in 1943. A Methodist and a Mason, he also belonged to several clubs while in Washington.

His wife survives him. The McIntires maintained a private residence in Coronado, California. In Chicago they lived in an apartment on Lake Shore Drive. He leaves a brother, Floyd McIntire, of Salem, Oregon.

ALBERT WALTON KENNER, M.D.

(1899–1959)

Major General Albert W. Kenner, M.C., U.S.A. (Ret.), Medical Director of Columbia Hospital for Women for the past 10 years, died, November 12, 1959, at the Hospital. General Kenner had served with distinction as a chief medical officer with the United States forces in the invasion of Europe in World War II.

General Kenner was born in Holyoke, Mass., in 1899, the son of a physician, Dr. Harry W. Kenner. The family moved to Washington when the General was an infant. He received his early education in the Washington schools. Becoming interested in pharmacy, he enrolled at George Washington University and received his degree in pharmacy in 1910. By 1916 he had his degree in medicine and entered the Army the following year.

During his career in the Army Medical Corps, he served in the Philippines, at West Point, and at Walter Reed Army Hospital. During World War II he was Chief Medical Officer at Supreme Headquarters, A.E.F., from February 1944 to July 1945. During that period he was responsible for coördinating the medical services of the Allies' air, sea and ground forces for the invasion of Europe.

General Kenner was chief surgeon for the task force landing in Casablanca in 1942 under General Patton. Later, while theater surgeon in Germany in 1945, he attended General Patton when the latter was fatally injured in an automobile accident.

After peace in Europe he became Chief Surgeon for the U. S. forces in the European theater, serving from June 1945 to March 1946.

A veteran of both World Wars, he retired in 1949 after 32 years of military service. His last assignment, from 1946 to 1949, was as a member of the Secretary of War's personnel board.

The United States and 4 foreign nations decorated General Kenner for his wartime services. Among his decorations were the Distinguished Service Cross, the *Croix de Guerre*, from both France and Belgium, and the Companion of the Bath, from England. He was also decorated by Morocco.

Honorary membership in the Medical Society of the District of Columbia was conferred upon him in 1948 in further recognition of his services to his country.

General Kenner's wife, Mrs. Raymonde Kenner, died in April 1959. He is survived by a son, Albert Kenner, Jr., of the home address, 4925 Rodman Street, N.W. He leaves a brother, Rodham W. Kenner, of Chevy Chase, Md., and two sisters, Mrs. Verna K. Parkinson, of Frederick, Md., and Mrs. Ada K. Stoddard, of Lake Worth, Fla.

Griseofulvin for Fungous Infections of Scalp—Gould

(*Continued from page 74*)

SUMMARY

Fulvicin (griseofulvin) was administered to 40 children with tinea capitis caused by *Microsporum audouini*, *Microsporum canis*, or *Trichophyton tonsurans*. The prescribed dosage schedule (divided doses of 500 mg. daily until there was unequivocal laboratory and clinical evidence of cure) produced cures in an average of 6 weeks in the 27 patients who did not interrupt therapy. Patients who failed to return as scheduled and therefore received the drug intermittently were eventually cured, although much more time was required. There were no significant toxic reactions.

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Esidrix-KCl for Acne Vulgaris—Cooper and Gant

(*Continued from page 75*)

diuresis with weight loss varying from 2 to 5 pounds was observed in all 18 patients. Following this initial diuresis no further diuresis or weight loss was observed by any of the patients.

All 18 patients have now been maintained on Esidrix-KCl therapy for at least 6 weeks. There has been a remarkable and dramatic change in their appearance, with disappearance of acne lesions.

This preliminary report is based on only a short period of observation. The use of Esidrix-KCl for the treatment of acne vulgaris is being expanded to provide an assessment of long-term therapy and to include metabolic studies which may provide an explanation for the mechanism of action.

ADDENDUM: Since submission of the paper, the study has been extended to include a total of 50 patients. Results in these latter patients, as well as the original group, all of whom have now been maintained on therapy for approximately 3 months, have been uniformly good.

Demonstration of Coronary Arteries in Man—Bickham

(*Continued from page 79*)

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Pediatric Psychiatry in School Health Services—Olshaker

(*Continued from page 94*)

one we had can make its best contribution, in addition to seeing a number of children, through consultation to the schools, to special school departments such as testing services, to remedial programs, and to administrative officials.

We hope that in the future much more can be done if the community can be "sold" on the idea that, by providing the schools with an atmosphere in which children with special problems can still be educated, the community as a whole will save much in the long run and the educators will be in a more advantageous position to do their job, which is to educate their students.

Report on Meeting of AMA House of Delegates

(*Continued from page 110*)

Urged state and local medical societies and individual physicians to implement the AMA program for recruitment of high-grade medical students;

Changed the title of the Section on Surgery, General and Abdominal, to the Section on General Surgery.

The background material from which this summary is drawn is in the hands of your Secretary and delegates and is available to any member of the Society who may wish more detail on any of the items.

The next Annual Meeting of the Association will be held in Miami Beach, Florida, June 13–17, 1960, and the 1960 Clinical Session is scheduled for Washington, D. C., November 28–December 2, 1960.

This report is respectfully submitted by:

RAYMOND T. HOLDEN, M.D., *Delegate*
RALPH M. CAULK, M.D., *Delegate*
KARL C. CORLEY, M.D., *Alternate Delegate*
THEODORE WIPRUD, *Secretary*

Lost Chord Club

(*Continued from page 117*)

voluntary basis, on the members' time, and in transportation which they themselves provide.

Physicians desiring the services of the Club's Visitation Committee or who desire to have a patient attend any of the Club's activities may make arrangements by calling or writing to Helen Margaret Rogers, R.N., Director of Services, District of Columbia Division of the American Cancer Society, 810 18th Street, N.W., Washington 6, D.C., telephone Executive 3-3690.

On the Lighter Side—Kadan

(*Continued from page 118*)

CHUCKLE NOTE: "What makes you think your wife is getting tired of you?"

"Every day this week she's wrapped my lunch in a road map."

J. EARL KADAN, M.D.

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THE GEORGE WASHINGTON UNIVERSITY NUMBER

As an introduction to this, The George Washington University Number, it seems appropriate to provide the membership of the Society and the many other readers of Medical Annals with a short story about the School of Medicine. Historical highlights show a pleasing profile of a relatively old medical school, aged 134 years. Source materials for the chronicle which follows have been obtained from many medical alumni, teachers in the School of Medicine, alumni records, and histories of American medicine. Miss Catherine Breen, Assistant to the Dean, Miss Isabella F. Young, Medical Librarian, and Dr. Robert W. Prichard, Class of 1947, have been especially helpful in providing reference material about the School of Medicine.

THE GEORGE WASHINGTON UNIVERSITY SCHOOL OF MEDICINE

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IN THE FALL of 1821, 2 months after the founding of Columbian College, 2 young men, Dr. Thomas Sewall from Harvard and Dr. James Staughton, a graduate in medicine from the University of Pennsylvania, conceived the idea of a course in medicine as a part of the college curriculum. Dr. Staughton's father, the first President of Columbian College, agreed, and he appointed his son and Dr. Sewall to professorships. Almost 4 years separated these appointments and the first class, during which time Staughton toured Europe in search of ideas and support for the new school. Before the opening of the school 3 additional faculty members were appointed, the roster then being as follows: Anatomy and Physiology, Thomas Sewall, M.D.; Chemistry and Surgery, James M. Staughton, M.D.; Botany, Alexander P. McWilliams; Theory and Practice of Medicine, Thomas Henderson, M.D.; Materia Medica, Nicholas William Worthington, M.D.; Obstetrics, Frederick May, M.D.

Of the medical schools now in existence, only 10 preceded Columbian College and only 1 had a larger professorial staff. In those early days there were no uniform requirements for graduation; the majority of the doctors practicing had never been to medical school. The more progressive medical educators had formulated certain standards. These were: an age of at least 21; 3 years of study with a recognized physician; 2 full lecture courses on the various branches of medicine; and a college education or evidence of suitable classical attainments. The final requirement was an oral examination and defense of a suitable thesis.

The first lecture was given on March 30, 1825, in a school building erected by the professors themselves at 10th and E Streets, N.W. On that occasion Thomas Sewall addressed the first class of 22 students on the subject of medical education in the United States, concluding with his hopes for the school being launched in Washington that day, as follows: "From the peculiar character of its population, formed as it must be, by an assembly of enlightened men, collected from the different parts of the United States, from the various republics, kingdoms, and empires of the world, that there will result a liberality of feeling, and an elevation of character, highly favorable to the cultivation of literature, science, and the arts." These feelings about Washington are even more true today than they were 134 years ago. Its clean beauty and treasured heritages are not duplicated in any other city. Washington has become a center of politics, economics, communication and transportation. There has been a corresponding growth of the city as a center of culture and science.

The first course of lectures in the Medical Department of Columbian College lasted 3 months. A second session, with an augmented faculty and a larger student body, was completed in March, 1826. When the first commencement was held, 6 students received their degrees. One Englishman was among them.

Early in its history the School granted honorary M.D. degrees. John Spence, who was active in introducing vaccination into this country, received such an award in 1827. William Beaumont, whose classic studies of gastric function are well known, received the only M.D. he ever held when Columbian College granted him the degree in 1833.

The School was operated very successfully until 1834, continuing even when activity in other departments of the College ceased in 1828. From 1834 to 1839 classes were discontinued, although private instructions by the faculty continued. In 1839 the staff was reorganized, and instruction has continued ever since, although no one was graduated during the years 1861–1863, while the Civil War was in progress.

The reorganized faculty, ever cognizant of the value of clinical training, petitioned Congress in 1844 for the use of the Washington Infirmary in Judiciary Square. In securing its use for the School they established one of the earliest teaching hospitals in the country, and provided students with opportunities for clinical work which did not come to most schools until early in the present century.

The Washington Infirmary thus became the first general hospital in the District of Columbia. Part of the support of the Infirmary came from Congress, which appropriated from $2,000 to $6,000 annually for the treatment of transient sick paupers. The operation of the first teaching hospital in the District by the Columbian professors met with some resentment among practitioners not on the staff. This group protested that a public hospital operated by public funds should be open to all practitioners and not be one "to which none other than members of the College faculty could send a patient and retain the management of the case." Here was the "closed staff" controversy in all its heat a century ago. In this case the Columbian faculty was so capable and Congress was so satisfied that protest soon subsided. Nursing care was provided by the Sisters of Charity. The building was enlarged in 1853 but reverted to Government control at the outbreak of the Civil War in 1861, burning to the ground 6 months later. Its history closed with the appropriation of $537.00

by Congress to pay the nuns for personal effects lost in the fire.

The onset of the Civil War disrupted the activities of the School. No catalogue was issued from 1861 until 1863, and no classes graduated, although the city directory for the period lists the School in an address on 14th Street, N.W. Dr. A. Y. P. Garnett, Professor of Anatomy from 1854, departed for the South, where he served as physician to Jefferson Davis, President of the Confederacy. The faculty and students were on both sides of the controversy, and it was not until 1863 that the School was fully reorganized in a building known as the Constitution Office, on E Street between 12th and 13th, N.W. From 1865 to 1867 the Columbian College Law Building on 5th Street between D and E was shared with the Medical School.

In 1867 Mr. W. W. Corcoran donated a building on the site of the present Medical School, at 1335 H Street, N.W. This structure was originally intended for use as an art gallery, but for the period just before its occupancy by the Medical School in 1867, specimens of the Army Medical Museum had been housed there. The gift of the building, valued at $30,000, was accompanied by a parcel of ground adjacent to the premises.

Just west of the Medical School on H Street the University built a preparatory school in 1882. This was closed in 1897, and the structure was incorporated the following year into the University Hospital. The former preparatory school building then became the dispensary and operating suite, while the newer portion of the structure contained the private rooms and wards of the hospital. Patients were first admitted in 1898. In 1887 $10,000 for equipment and alterations of the old Medical School building were received, and finally in 1902 a new building was constructed on the same site. A brick annex to house laboratory facilities for the various basic science departments was built in 1931.

To complete the picture of change to this point, mention of the school's titles should be made. In 1847 the School assumed the title of National Medical College, Medical Department of Columbian College. In 1873 "Columbian College" became known as "Columbian University." In 1904 the title "The George Washington University" was authorized, with a corresponding change in the name of the Medical School.

While the physical plant of the School changed, the curriculum changed even more. Originally, attendance at 2 annual sessions, each 5 months in length, was required. Laboratory work began at the School very early, courses in the use of the microscope being listed in the catalogue for 1852. This publication announced that "the tissues of the body are demonstrated under the microscope from specimens prepared by the best microscopical anatomists in Europe." In 1878 a spring session for lectures on special subjects was started, and in 1879 the course was increased to 7 months, attendance at 3 annual sessions being required. The final step to a 4-year course was taken in 1893. These changes were in accord with the most progressive programs of medical education of the time. From 1866 to 1904 sessions of the Medical School were held in the evening, beginning at 4 p.m., presumably due to the occupation of the faculty and students with other responsibilities during the day. Thus it was that some of the great physician scientists around the turn of the century became leaders in medical education in addition to their primary responsibilities to Governmental services.

In 1884 young Dr. Theobald Smith, aged 25, came to Washington as Director of the laboratory of the newly established U. S. Bureau of Animal Industry. Two years later he instituted in our University the first Chair of Bacteriology in an American medical school. It was during the 10 years of his professorship that Dr. Smith did his pioneer work with tick fever and bovine tuberculosis.

While serving as Curator of the Army Medical Museum and Professor of Bacteriology of the Army Medical School, Major Walter Reed and his associate, Dr. James Carroll, taught our students pathology and bacteriology from 1901 to 1907.

The next Professor of Pathology and Bacteriology, from 1909 to 1913, was Dr. Frederick F. Russell, who was also a member of the staff of the Army Medical School. It was during this time that Dr. Russell was providing the United States Army and the world with the first safe vaccine against typhoid fever.

In 1931 the Smith-Reed-Russell student honor society was established in the School of Medicine as a memorable tribute to these 3 distinguished medical pioneers. We are pleased that over the years a close and coöperative association has continued between the staffs of the military, public health and veterans' services and our School of Medicine.

The curriculum after World War II was revised to include postgraduate courses for many doctors returning to private practice from military service. Associated with changes of the past 10 years in the School of Medicine and the University Hospital the staff has been increased from 41 to 71 full-time and from 265 to 568 part-time teachers. During the decade from 1949 to 1959, 812 students graduated from the School of Medicine and 260 more received master's or doctor's degrees in the medical sciences. Thus 20 per cent of the total of 4,114 physicians who have graduated from The George Washington University have received their degrees in the past 10 years. Our country and the world needs an increasing number of capable physicians. One of the most important current problems in America is that of providing facilities and opportunities for all qualified students who wish to study medicine.

During the past year a comprehensive University plan of development has been completed. The Medical Sciences facilities of the University will occupy the northwest area of the campus around the University Hospital. Three units, the University Hospital, the Warwick Memorial Building, and the Everglades apartment building for nurses, on H Street at 23rd Street, N.W., are already in existence. The University now owns the land which may be used for an addition to the University Hospital, a new School of Medicine, a School of Nursing, possibly a School of Dentistry, a University Clinics building, and a Medical Research Building. Additional facilities to complete the Medical Sciences segment of the University campus include a Doctors' Office Building, a new hospital unit for Chronic Diseases and Rehabilitation, a School for Medical Technologists, dormitories for medical students, interns, residents, and nurses, and extensive parking facilities for personnel, patients and visitors. All proposed buildings will be located near the University Hospital with appropriate connecting facilities.

From such progressive early leaders a deep sense of responsibility to and for the advances of medicine have prevailed in The George Washington University School of Medicine. The School's strongest investment now, as in the past, is in a staff of highly qualified teachers dedicated to the duties of preparing young men and women for professional lives in medicine. Thus the University is keeping the faith Dr. Thomas Sewall had in laying the foundation of a medical school "which shall hereafter become commensurate with the progress and demands of this rising Metropolis, and the improvements of the science throughout the country."

ELECTRODIAGNOSTIC TESTING OF PERIPHERAL NERVE FUNCTION

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ELECTRODIAGNOSTIC tests have a long history of usefulness in the clinical evaluation of peripheral nerve function. In 1868 Erb[1] described in detail the responses of normal denervated muscles to electrical stimulation. In the years that have followed, continuing improvement in apparatus and technics has led to more sensitive and quantitative methods of electrodiagnosis. The most useful methods employed today include (1) response to galvanic and faradic stimulation, (2) response to electrical currents of varying duration and intensity, (3-chronaxie measurements, (4) electrical skin re) sistance measurements, and (5) electromyography.

Response to Galvanic and Faradic Stimulation

Technic. A wide variety of electrical stimulators are commercially available supplying galvanic (direct) and faradic (alternating) current. The stimulators are designed to permit convenient adjustability of the strength of the applied current and reversible polarity in the case of the direct current circuit. A large electrode pad is connected to 1 outlet and a small stimulating electrode to the other. The large pad serves as an indifferent electrode and is placed over a portion of the trunk or extremity not being tested. The active or stimulating electrode is applied over the muscle to be tested. Both electrodes are moistened to reduce skin resistance. The type of current to be employed may be varied by a selector switch. A "make and break" switch on the stimulating electrode controls the application of the electrical stimulus.

Interpretation. The normally innervated muscle will respond to an adequate galvanic stimulus by a brisk twitch. It will respond only during the "make and break" of the electrical circuit. In clinical practice only the "make" response is employed. Normally the "make" or closing response to the cathode (negative) pole is greater than the response to the anode (positive) stimulus (CCC greater than ACC). During the passage of the galvanic current the muscle accommodates to the stimulus and remains relaxed. When higher strengths of current are used the muscle may remain partially contracted—galvanotetanus. In normally innervated muscle, however, galvanotetanus can be produced only with painfully strong current intensities that usually are not well tolerated.

The location of the stimulating electrode over the muscle which permits maximal contraction with a minimum of current is called the "motor point." In normal muscle this point usually is located over the middle of the muscle belly where the motor nerve enters the muscle tissue. In the denervated state the motor point is shifted toward either the origin or the insertion of the muscle being tested.

When a motor nerve degenerates, about 14 to 21 days are required for wallerian degeneration to become complete. Responses to electrical stimulation remain normal until the anatomic degeneration is complete. After this occurs a denervated muscle responds with a characteristic "reaction of degeneration" (R.D.). The response to a galvanic stimulus in this case is characterized by a slow vermicular contraction as compared to the normal brisk twitch. When denervation is complete the muscle may remain contracted during the flow of current (galvanotetanus) when comparatively low intensities of current are employed. The "galvanotetanus ratio"[2] is sometimes used as an index of the degree of denervation present. It is defined as the minimum current required, using cathodal stimulation, to produce a sustained contraction divided by the strength of current required for a threshold contraction. In normally innervated muscle this ratio may be 6 or higher; in denervated muscle the ratio approaches unity.

Faradic current, or alternating currents with frequencies of 60 cycles per second or more, produces a sustained tetanic contraction when applied to normally innervated muscle. In disease or injury to the peripheral nerve, when sufficient time has elapsed to allow complete anatomic degeneration, the muscle will not respond to faradic or alternating current. The denervated muscle may respond, however, to alternating current if the frequency is below 50 cycles per second and the current intensity sufficiently high.

The various responses of a muscle to stimulation by galvanic and faradic stimulation permit a fairly accurate qualitative estimate of the state of the peripheral nerve, as summarized in table 1.

The chief diagnostic value of galvanic-faradic testing is to give objective evidence of a lesion in the lower motor neuron. It is useful in proving or disproving functional disorders such as hysteria, which may simulate an organic peripheral nerve lesion. The tests are limited by lack of quantitative measurements in instances of early or minimal involvement of the motor nerve.

Response to Electrical Currents of Varying Duration and Intensity (Strength Duration Curve)[3]

Technic. A suitable electronic circuit is employed which permits the application of electrical stimuli of variable strength and duration. The strength of the stimulus is recorded on a milliammeter ranging from 0 to 25 milliamperes; the duration of the stimulus is varied by suitable electronic circuits and a selector switch to produce current flow durations from 0.1 msec. to 1,000 msec. A moist cathodal stimulating electrode is placed over the motor point of the muscle to be tested and a large indifferent electrode placed elsewhere on the extremity. A current duration of 1,000 msec. is selected and the milliamperes of current required for a threshold response recorded. By successive steps the current duration is shortened, and for each duration the current required for a threshold response is observed. A strength duration curve of electrical excitability is charted on a semilogarithmic graph as shown in figure 1.

TABLE 1

Electrical Responses to Galvanic and Faradic Stimulation

	Galvanic	Faradic
1. Normal reaction	Brisk twitch (CCC greater than ACC). Normal motor point	Tetanic contraction
2. Partial reaction of degeneration	Diminished response	Diminished response
3. Full reaction of degeneration	Sluggish response (ACC greater than CCC)	No response
4. Absolute reaction of degeneration*	No response	No response

* Absolute R.D. indicates loss of contractile tissue such as occurs with fibrosis following prolonged denervation.

Interpretation. The normally innervated muscle will respond to currents of shorter duration and at lower strengths of current than a muscle in the denervated state. The normal curve of electrical excitability is represented as almost a straight horizontal line between stimuli ranging from 1,000 msec. to 1 msec. in duration. In this range the normal muscle requires about 2 to 5 milliamperes of current for a visible threshold contraction. With current durations of less than

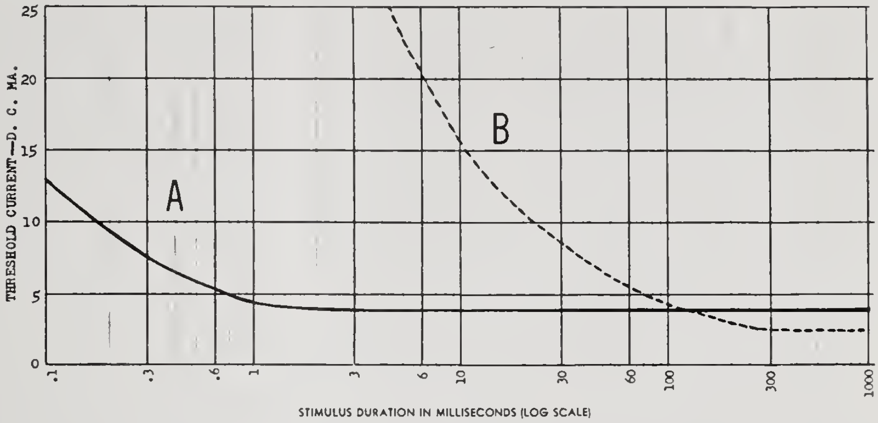

Fig. 1. Strength duration curves of electrical excitability. A. Normal. B. Complete denervation.

1 msec. the normal muscle will require somewhat higher strengths to elicit a response.

In the denervated state muscles require stronger electrical currents for threshold responses when short duration impulses are employed. This is characterized by a shift of the curve upward and to the right. In the partially denervated state or during early degeneration or re-innervation the curve of electrical excitability lies somewhere between the 2 extremes. Early evidence of re-innervation may be detected by the shifting of the curve toward the left or the presence of discontinuities in the curve of electrical excitability. In comparison to the galvanic-faradic testing of peripheral nerve function, the strength-duration curve is a more sensitive and more quantitative measurement of the degree of denervation present. Changes in the curve may also be used as an early prognostic sign for re-innervation.

Chronaxie Measurements[4]

Technic. The chronaxie of a muscle is defined as the duration of a stimulus required for a threshold response when twice the rheobasic current is used. In 1909 Lapicque[5] first defined the rheobase as the threshold of stimulus intensity. In seeking an index of nerve function he found it necessary to double this threshold intensity and then find the minimum duration that this stimulus required to evoke a response. It is therefore an arbitrary value and indicates only 1 point on the curve of electrical excitability.

Complex electromechanical devices were required in the past for chronaxie determinations. In more recent years chronaximeters have been available with the use of electronic circuits, making them accurate and convenient for clinical use. In practice the chronaxie is determined by first finding the rheobase value. The negative electrode is applied over the motor point being tested and the threshold curve determined with 1,000 msec. duration. The stimulating current is then increased to double the rheobasic value. By appropriate selector switches the duration of the stimulus is increased from 0.1 msec. to a point where the first visible muscle contraction occurs. The duration of this impulse is recorded as the chronaxie.

Interpretation. In normally innervated muscle in the human the chronaxie is always 0.1 msec. or less. Values higher than this indicate some degree of denervation. In complete denervation chronaxies of 30 msec. may be observed. In partial lesions of the peripheral nerve chronaxies usually are below 10 msec. Following nerve repair a lowering of the chronaxie on successive tests may be interpreted as an early sign of regeneration.

Chronaxie measurements are more conveniently made than determinations of the entire curve of electrical excitability. In clinical practice, therefore, it is particularly useful when numerous muscles are to be tested in an individual patient. When only a few muscles are to be evaluated in a patient, the entire curve of electrical excitability is of greater value.

ELECTRICAL SKIN RESISTANCE

Technic. In 1907 Peterson and Jung[6] observed changes in the resistance of the skin to the passage of electrical current associated with emotional changes. Numerous investigators have employed this "psychogalvanic reflex" in physiologic studies since that time. Richter[7] used the study of skin resistance as a measure of abnormal nerve function.

Skin resistance is measured by a dermometer by means of a 9-volt direct current source, a variable resistance, and a micro-ammeter. An indifferent electrode is clipped to the patient's ear lobe with electrode paste, which reduces the skin resistance at this site to a minimum; a second, or exploring electrode, consisting of a dry, polished metallic disc attached to an insulated handle, is touched to the part to be tested. This allows a rapid and technically easy method for scanning the entire body for areas of high or low electrical resistance. Arbitrary values on the micro-ammeter are recorded for symmetrical areas of the body with particular attention to areas of high skin resistance.

Interpretation. Richter[7] has mapped out the normal variations in skin resistance and observed that areas rich in sweat glands had lower resistance than those areas with fewer glands. The axillae, palms of the hands, and soles of the feet normally were found to have a low resistance to the passage of direct current. It was found that factors other than sweat per se influenced the skin resistance.

Following sympathectomy the denervated area is found to have abnormally high skin resistance which parallels the findings of sweat tests. It is therefore a simple and effective clinical tool in the determination of the level and extent of sympathectomy.

In peripheral nerve lesions the accompanying sympathetic fibers often are affected. These fibers parallel the areas of sensory loss and can be objectively determined by use of the skin resistance. This is particularly useful when objective evidence may be required in infants or other patients from whom voluntary coöperation cannot be obtained. During re-innervation the areas of increased skin resistance fall toward normal levels on serial determinations.

ELECTROMYOGRAPHY[8]

Technic. The early experimental work in the recording and interpreting of electrical potentials by means of electromyography was carried out by Adrian[9] in 1929. Since that time considerable improvement in apparatus and technic has led to numerous applications of this tool in research and clinical investigation. Modern electromyographic equipment includes suitable pick-up electrodes, a grade amplifier with a frequency response from 40 to 6,000 cycles, and a recording device. The electrode may consist of a fine needle insulated down to its tip with an indifferent electrode placed on the skin surface or a coaxial needle electrode with both poles inserted into the area to be tested. The amplifier is usually coupled to a cathode ray oscilloscope in which the potentials are viewed and to a loud speaker from which characteristic electrical potentials can be heard. Permanent records can be made by means of magnetic tape recording or photographs taken of the oscilloscope tube.

Interpretation. The normally innervated muscle is electrically silent at rest. Upon insertion of the needle an outburst of electrical activity may be observed which subsides rapidly if the muscle is at rest. These "insertion" motor-unit action potentials have no clinical significance. With attempted minimal voluntary contraction normal motor units appear. These are repetitive polyphasic spikes having a magnitude from 100 to 3,000 microvolts, a duration of 5 to 10 milliseconds, a wave form of 1 to 6 spikes, and a frequency of 5 to 30 waves per second. On the loud speaker they are heard as sharp thumping sounds. As voluntary contraction increases in intensity additional motor units are recorded, and a highly irregular interference pattern across the entire oscilloscope tube is created.

In some unusually apprehensive patients, however, as well as in certain postural muscles, complete relaxation may be impossible to obtain.

With any disease or injury to the lower motor unit associated with degeneration of the anterior horn cell or any portion of the peripheral motor nerve fiber, the electromyogram may record the characteristic potentials of fibrillation. The wave shape of fibrillation of denervation usually is monophasic or diphasic, with a duration of 1 to 2 milliseconds, a frequency of 2 to 20 per second, and an amplitude of 100 microvolts or less. The waves are heard on the loud speaker as a characteristic irregular series of high-pitched sharp clicks. The finding of fibrillation action potentials is the most positive objective clinical finding denoting interruption of the peripheral motor nerve. Following nerve injury approximately 14 to 21 days are required before fibrillation potentials are observed. Very often numerous areas in the muscle must be sampled before these potentials are discovered. The fibrillation potentials tend to disappear shortly before nerve regeneration occurs and may diminish as fibrosis of the muscle takes place after long periods of denervation.

Regeneration of a peripheral nerve can be accurately followed by serial electromyographic examinations. The earliest sign of recovery may be the diminution in the amount of fibrillation activity. The first positive observation, however, is the appearance of small polyphasic action potentials (nascent motor units) with attempted voluntary contraction. As regeneration progresses these units become larger until the typical polyphasic motor unit potentials associated with nerve regeneration are observed. These may have 10 to 25 spikes, a duration of 10 to 20 milliseconds, and amplitudes varying from 25 to 5,000 microvolts. They are distinguished on the loud speaker by rough crackling sounds of variable pitch.

As nerve regeneration becomes more complete the polyphasic potentials are replaced by more and more normal motor units. Even after complete clinical reinnervation has occurred, however, it is usually possible to find occasional areas in which the polyphasic motor units persist.

Aside from its value in following the course of peripheral nerve degeneration and repair, the electromyogram is finding increasing usefulness in neurologic diagnosis. The diagnosis of various types of spinal cord diseases may be assisted by electromyographic examination. In multiple sclerosis, progressive muscular atrophy, and other degenerative diseases which may involve the anterior horn cell, electromyographic evidence of fasciculation denotes a definite abnormality in the functioning of the lower motor unit. This is particularly helpful in early stages when objective clinical findings are minimal. The presence of fibrillation potentials is believed by some observers to distinguish the neuropathies from the muscular dystrophies. In the former the disease is primarily in the anterior horn cell, and fibrillations as well as fasciculations are observed. In the muscular dystrophies true fibrillations are believed to be only rarely present.

In general, electromyographic examination will have an increasing sphere of usefulness in electrodiagnosis. It is at the present our most sensitive index of the state of the peripheral nerve. With improved instrumentation addiditional data such as nerve conduction velocities probably will find clinical significance. Because of the complexity of the apparatus and the relatively few physicians trained in the interpretation of the electromyographic records, however, it will not replace the older electrodiagnostic tests described above.

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DIAGNOSTIC AND THERAPEUTIC NERVE BLOCKS

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NERVE BLOCKS may be used as aids in diagnosis and for treatment of pain and vasospasm. These blocks are valuable adjuncts for the clinician. The patient as a whole must be considered and not the specific portion of the body in which the physician is interested at the moment. The patient with gout who has a tender big toe could be treated with colchicine. The patient with arthritis may respond favorably to salicylates. Nerve blocks should be used along with accepted methods of therapy. Blocks are not meant to replace standard medication and should not be expected to be a panacea for all the patient's ills. Helpful information and relief can logically be expected in many cases.

Care must be taken to make these blocks as safe as possible for the patient. Accurate placement of the needle is essential, and expert knowledge of anatomy is a prerequisite. Local anesthetics should be limited to safe drugs and used in proper concentrations and amounts. Care must be exercised to aspirate for blood, spinal fluid or air before each injection in order to avoid injecting into a blood vessel, the subarachnoid space, or the pleura. Finally, a means of giving intermittent positive pressure oxygen and intravenous barbiturates to counteract the possible reactions or complications of these injections must be readily available.

The indications and benefits of these blocks will be discussed. Exact technics are well documented in texts on this subject.[1, 2, 3]

Care should be taken not to indicate to the patient what effect or relief is to be anticipated following the block. Some patients are susceptible to suggestion, and false results may indicate an operative procedure that may not be warranted. In diagnostic nerve blocks it may be wise to follow a successful block with a saline injection at a later time to see if a good result is still obtained. If the patient does not respond to the saline injection, the block with a local anesthetic agent is repeated. If a good result is now obtained, it is fair to assume that interruption of nerve impulses has been responsible for the desired effect.

Almost any nerve in the body can be blocked with local anesthetic solution, but only the blocks most commonly performed in clinical practice will be reviewed.

CRANIAL NERVES

The cranial nerve most often blocked is the trigeminal. This fifth cranial nerve is involved in tic douloureux, and the relief of pain is therapeutic as well as diagnostic. This may indicate alcohol injection or operative section of the nerve for permanent relief. The injection of alcohol may destroy the nerve fibers and obviate an operative procedure.

Vascular headaches may sometimes be relieved by blocking the involved sympathetic nerves surrounding arteries, such as the supra-orbital, infra-orbital and temporal.

Herpes zoster may involve the supra-orbital, infra-orbital, and mental nerves. The severe pain that accompanies this may be relieved by these blocks.[4]

CERVICAL NERVES

Block of any cervical nerve may be indicated for relief of pain in the involved area.

Intractable hiccup that does not respond to ordinary methods of therapy may be stopped by blocking the third, fourth and fifth cervical nerves or the phrenic nerve on the involved side as shown by fluoroscopy of the diaphragm.

Brachial plexus nerve blocks may be utilized for conditions involving the upper extremity supplied by cervical nerves 5, 6, 7 and 8 and thoracic 1.

The sympathetic nerve block of the stellate ganglion, composed of the inferior cervical and the upper thoracic ganglia, is a most helpful and easily accomplished block. It must always be remembered that the stellate ganglion is blocked on the same side for peripheral effect on the upper extremity. Causalgia and injuries of the arm, hand or fingers associated with vasospasm are often greatly benefited by this block. The stellate ganglion is blocked on the opposite side in the patient with hemiparesis, because of cross innervation. Cerebral thrombosis associated with cerebral vasospasm in the vicinity of the thrombosis should be treated as soon as possible after it occurs and before the patient is placed on anticoagulants. Blocks are contraindicated in patients on anticoagulant therapy because of the increased risk of hemorrhage. A successful stellate ganglion block is followed by warming of the face and upper extremity and by Horner's syndrome, which is characterized by miosis, enophthalmos, ptosis, conjunctivitis, and anhidrosis on the side of the block.

THORACIC NERVES

Paravertebral blocks of all thoracic nerves may be done by blocking the nerve at the exit from the spinal column. The pain of intercostal neuralgia, neuroma, herpes or fractured rib may be relieved by injecting a local anesthetic anywhere between the site of the pain and the exit of the nerve from the spine.

The upper 4 thoracic sympathetic ganglia can be blocked to relieve the pain of coronary disease. Some authorities question whether this is a good procedure, since it removes the warning to the patient, and therefore do not recommend the operative removal of these fibers to give permanent relief.

Visceral pain may be relieved by thoracic sympathetic nerve blocks.[5, 6] These blocks may be used to differentiate gallbladder pain from coronary and pancreatic pain. The anuria due to renal shutdown may be relieved by sympathetic nerve block of the lower thoracic sympathetic ganglia which send fibers to the kidney.

Simple infiltration of the chest wall directly in the area of chest pain may be easily performed to relieve the pain of pulmonary embolism or pleurisy.

LUMBAR NERVES

Injection of the somatic nerves in this area, as in the thoracic, can readily be done for the relief of neuritis and neuralgia.

Sympathetic nerve block of lumbar 1, 2 and 3 should be done for relief of pain, causalgia, and vascular disease complicated by spasm and deficient blood flow in the lower extremity. The patient who has had an embolism or thrombophlebitis is often greatly aided by blocking these sympathetic fibers. The postoperative patient who has had an embolectomy or an arterial graft also has some associated vasospasm which may be relieved by sympathetic nerve block.

SACRAL NERVES

The sacral nerves may be blocked in cases of perineal pain, especially those associated with malignant disease. Alcohol blocks or actual nerve section may be used after good temporary relief is afforded by these blocks.

CAUDAL CANAL

Injection into the caudal canal is an epidural technic and thus this may be used for blocking sacral, lumbar, or even lower thoracic fibers. It is easy to insert a vinyl catheter through the caudal needle, and this catheter is left in place after the removal of the needle. Thus, an easy method of injection is obtained and more local anesthetic agent can be injected at intervals as needed. This has been used in our institution in many cases for the relief of rectal pain after hemorrhoidectomy for 48-hour periods with excellent results.[7, 8]

PERIPHERAL NERVES

Any peripheral nerve in the body may be involved in neuropathies such as neuritis, neuralgia or neuroma and may be treated by nerve block. Bursitis may be treated by needling the bursa and injecting a local anesthetic. Although the deltoid bursa is most commonly considered, it is important to remember that any bursa may become involved and may be treated in this manner.

ALCOHOL BLOCKS

The injection of absolute alcohol may be used when more lasting results are desired. The average relief from an ordinary local anesthetic agent is a few hours, whereas relief from an alcohol block may be 6 months or more. Careful placement of the proper amount of alcohol in the exact spot desired is of paramount importance. Alcohol injection is used in cases of intractable pain. Paraplegics may require subarachnoid alcohol block for relief of pain, muscle spasms and hypertonic bladder. The hazards of sphincter paralysis and muscular weakness must always be considered.

TRIGGER POINTS

The exact number of blocks that may be necessary in an individual case is difficult to state. One block may suffice in some cases; repeated blocks may be necessary in others. Pain may set up a vicious cycle, and the object of the nerve block is to interrupt the cycle.[9] An organic lesion at the periphery involving sensory nerve filaments may become a source of chronic irritation. Afferent impulses from this trigger point eventually create an abnormal state of activity in the internuncial neuron centers of the spinal cord. This internuncial disturbance is in turn reflected in an abnormal motor response from both the lateral and anterior motor neurons. This may cause muscle spasm, vasomotor changes, and other effects that may furnish new sources for pain and new reflexes. Thus, a "vicious cycle" is created. If the trigger point is removed early, the process may subside. This may not always suffice, but if an important part of the circle of reflexes is interrupted, the process may be stopped. This may necessitate repeated injections as determined by the relief afforded by these blocks.

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CONVENTIONAL ROENTGEN PROCEDURES AND THE CARDIOVASCULAR SYSTEM

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THE ADVANCES in diagnosis and treatment of cardiovascular disease dependent upon the development of such specialized procedures as angiocardiography, aortography and cardiac catheterization are so self-evident as to need no amplification. Less evident, perhaps, but no less important, are the contributions of these complicated procedures to the better understanding and interpretation of the more simple and routine procedures carried out daily in our evaluation of the cardiovascular system.

Until the advent of angiocardiography there was more or less general disagreement as to the border-forming propensities of the various cardiac chambers and great vessels in the roentgenogram of the chest. With contrast filling of the heart it became evident that the pulmonary conus was very nearly a mid-line structure and contributed to the cardiac border only in the lateral view. The right ventricle was seen to be nonborder-forming in the anteroposterior projection, except as it rests on the diaphragm, and to be consistently border-forming only in the lateral view, alternating with the right atrium in this capacity in the left anterior oblique projection. The recognizable structures of the left border in the posteroanterior projection from above down are now known to be aorta, pulmonary artery and left ventricle, with the left atrial appendage projecting between the pulmonary artery and the left ventricle but usually not identifiable unless there is enlargement of the left atrium, which is normally central in position and border-forming only in the oblique and lateral projections. The right cardiovascular border in the posteroanterior projection is formed by the right atrium with the superior vena cava above, except in older individuals with lengthening of the aorta, which results in its ascending portion extending to the right beyond the superior vena cava above the right atrium.

The conventional roentgen methods utilized in evaluation of the heart and great vessels may be said to include roentgenography and roentgenoscopy of the chest in posteroanterior, oblique and lateral projections with and without barium in the esophagus. The utilization of the barium-filled esophagus to delineate the left atrium in the PA and right anterior oblique projections has been in use for years, and no comment is necessary except to point out the relatively high position of the atrium in this projection and the nullification of the method by appreciable lengthening of the aorta (figures 1 and 2).

Acquired heart disease in general lends itself to evaluation by routine roentgen methods more satisfactorily than does congenital heart disease. This is understandable, because in the former we have a normal base to build upon, while in the latter the heart is abnormally formed from the beginning. In addition, in congenital heart disease we are frequently called upon for evaluation of the heart in infancy when an obscuring thymus is present, chamber identification difficult, and time has not yet allowed recognizable cardiovascular alteration in response to the underlying congenital defect. However, in the congenital anomalies existing beyond infancy routine roentgen methods have

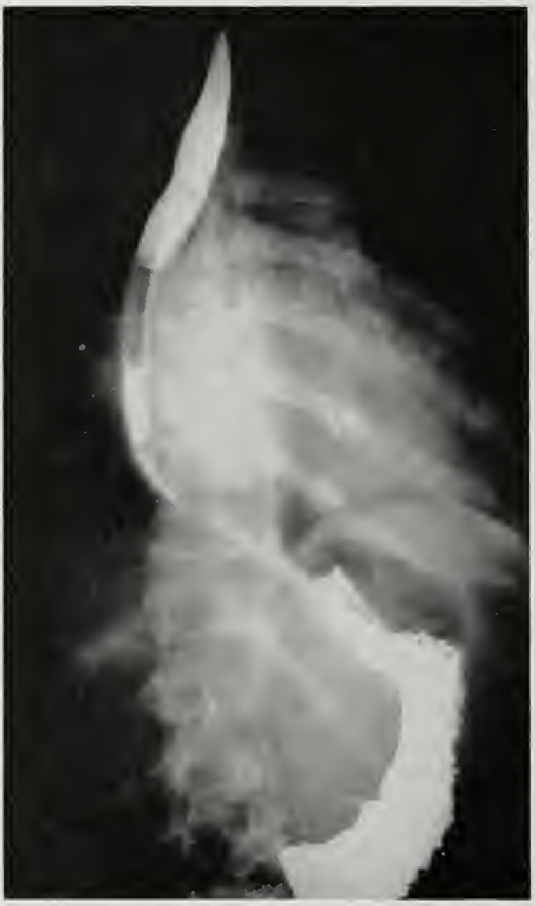

FIG. 1. PA projection of the chest with barium-filled esophagus demonstrating characteristic displacement of the esophagus to the right by an enlarged left atrium.

much to offer, if only by way of discovery and even though special procedures are necessary before surgical intervention. Therefore, some of the more characteristic congenital lesions will be considered, together with acquired cardiac disease.

Among the acquired pathologic conditions of the heart, rheumatic heart disease has occupied a prominent position in roentgen consideration, not only because of its frequency, but also because it has lent itself so admirably to this method of investigation. The classical picture of well-developed mitral stenosis can be recognized with assurance, and the comparatively rare isolated aortic stenosis also frequently presents a characteristic picture (figure 3).

Combined valvular lesions are another matter, and contrast studies, together with surgical exploration, have taught us humility in our evaluation of such problems as relative degrees of stenosis and insufficiency of the mitral valve and differential ventricular enlargement. Enlargement of the left atrium or left ventricle may compress the right ventricle against the sternum simulating right ventricular enlarge-

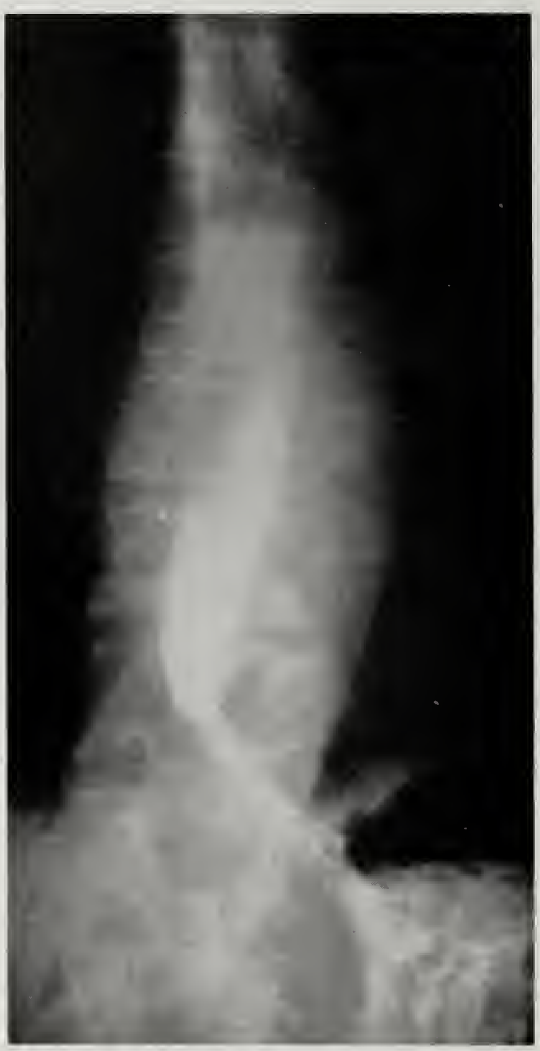

FIG. 2. PA projection of the chest with barium-filled esophagus demonstrating the esophagus accompanying the lengthened aorta to the left. The left atrium is considerably enlarged but fails to displace the esophagus in a characteristic manner in either the PA or right anterior oblique positions in the presence of an appreciable lengthening of the aorta.

ment in the lateral view. With enlargement of the right atrium and right ventricle, the left ventricle may overlap the spine in the left anterior oblique view, a projection which has been recommended for determining left ventricular enlargement on the basis of its relationship to the spine. The position of the cardiac apex relative to the diaphragm in the posteroanterior projection can also be misleading as an index for distinguishing between right and left ventricular enlargement. For example, it is interesting to note the similarity in the appearance of the cardiac contour in tricuspid and mitral atresia where the right and left ventricle respectively are rudimentary. The shape of the right ventricle in tetralogy of Fallot may present an astonishingly similar contour to the left ventricle in tricuspid atresia in the posteroanterior projection. Thus, even in congenital lesions, the upward tilt of the cardiac apex, the so-called *coeur en sabot*, does not hold as a reliable characteristic of right ventricular enlargement, and this sign cannot be logically applied to acquired heart disease where we are dealing with a modification of normal, rather than abnormal, from the beginning.

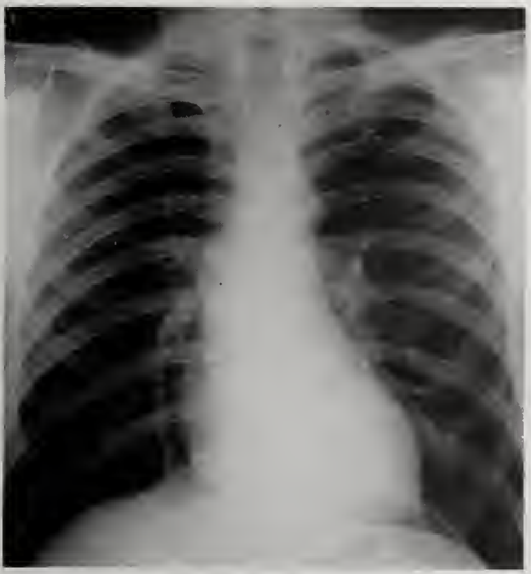

FIG. 3. The ascending aorta is prominent due to poststenotic dilatation. In body section films and on fluoroscopy calcification was noted in the aortic valve. In the presence of an associated mitral stenosis the poststenotic dilatation of the aorta may not develop. The degree of left ventricular enlargement is of course variable.

Cardiac catheterization studies have done much to elucidate the pulmonary vascular changes in mitral stenosis and have added reliable information in both the differential diagnosis and the evaluation of the cardiac patient.

Pressure studies have demonstrated normal values in mm. Hg for the right ventricle of 15–25/0–5, for the left atrium 6–10, and for the pulmonary artery 15–25/7–15. It has been established that with moderate left atrial pressure, not over 25 mm. Hg, the pulmonary vasculature has an essentially normal appearance (figure 4). With elevation of the venous pressure above 25 mm. Hg there is an abrupt and disproportionate rise in the pulmonary arterial pressure.[1] This may be manifested by disproportionate enlargement of the main arterial branches of the pulmonary

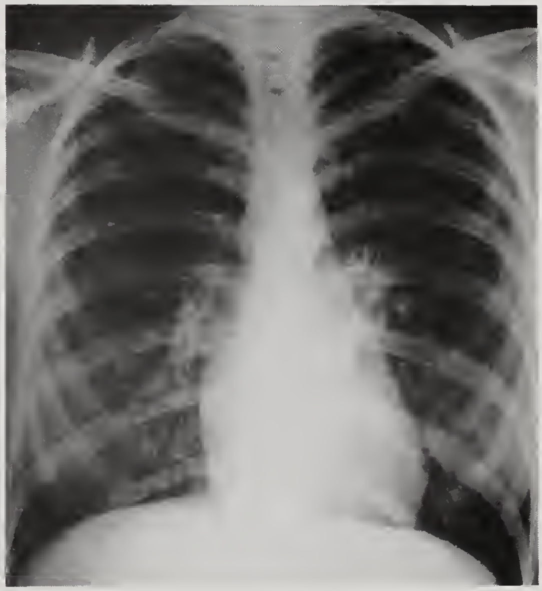

FIG. 4. Mitral stenosis in which catheterization studies demonstrated normal right ventricular and pulmonary artery pressures. The pulmonary artery and its branches are normal in size and distribution.

artery and narrowing of the smaller arteries in the more peripheral zones of the lungs (figure 5). This, of course, is a manifestation of pre-capillary resistance from any cause and not just a characteristic of peripheral arterial spasm in response to increased pulmonary venous pressure. However, in response to increased venous pressure of a more chronic nature as in mitral stenosis there does occur a characteristic feature of this peripheral arterial spastic phenomenon, namely, a selective constriction of the pulmonary vessels with the veins and arteries to the lower lung fields narrowed while the vessels in the upper lung fields are not narrowed and may be dilated.[2] This selective vascular constriction may depend upon the fact that due to gravity the pulmonary venous pressure is about 20 mm. of water higher in the lower than in the upper lung fields.[3] The characteristic distribution of acute pulmonary edema in the central core and upper posterior zones of the lungs may be explained by this selective constriction[4] and suggests that it occurs in elevation of the pulmonary venous pressure in left ventricular failure, although not demonstrable to the degree that it is in mitral stenosis, possibly because of the obscuring alveolar edema or because of its lesser degree in that the pulmonary venous pressure of a more acute nature does not become as high as in mitral stenosis, where chronicity allows other factors such as bronchial spasm and alveolar change to militate against alveolar edema until a higher venous pressure is reached.

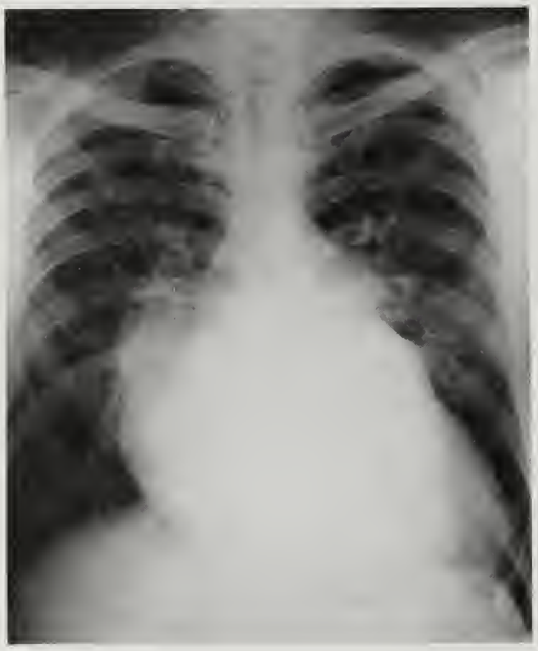

FIG. 5. There is marked enlargement of the pulmonary artery and its main branches out of proportion to the peripheral vessels. Also, the vessels in the upper lung fields appear more prominent than in the lower lung fields.

Cardiac catheterization has served to further elucidate the nature of Kerley B lines noted at the costophrenic angles in cases of impaired venous and lymphatic flow in a centripetal direction. These lines, originally described by Kerley (1933), are due to radio-opacity of the interlobular septa.[5] The septa are most often made opaque and arranged in lines at right angles to the pleura by edema fluid. Catheterization studies have confirmed the fact that the critical level of pulmonary capillary pressure for the production of Kerley B lines is about 20 mm. Hg.[5] These lines are usually visualized at the costophrenic angles, possibly because of gravity, and when secondary to increased pulmonary venous pressure are indicative of interstitial pulmonary edema and serve notice of impending alveolar pulmonary edema. For their demonstration the septal lines are dependent upon surrounding aerated alveoli and hence are obscured by accompanying alveolar edema. Hence, in acute left ventricular failure they are less likely to be seen than in mitral stenosis in which the chronicity of the venous hypertension seems to allow for a higher pressure before frank alveolar edema supervenes (figure 6). Since elevation of the venous pressure above 25 mm. Hg results in elevation of the arterial pulmonary pressure, these lines are indirectly indicative of elevation of the pulmonary arterial pressure but only when this pre-capillary arterial pulmonary hypertension is secondary to and dependent upon elevated venous pressure. Kerley B lines may also be due to any cause of lymphatic or venous pulmonary obstruction or increased capillary permeability.[5] Occasionally they may result from malignant-cell invasion, fibrous tissue proliferation, or pigment deposition.[5]

Hypertensive heart disease and aortic insufficiency occurring as isolated lesions present similar roentgen findings in that they both result in enlargement of the left ventricle with dilatation and lengthening of the aorta. However, in aortic insufficiency due to syphilis there may be a disproportionate dilatation and/or calcification of the ascending aorta to indicate the etiologic factor (figure 7). Moreover, in hypertensive heart disease the aorta may be only lengthened, and if dilated there is usually no loss of parallelism of its walls.

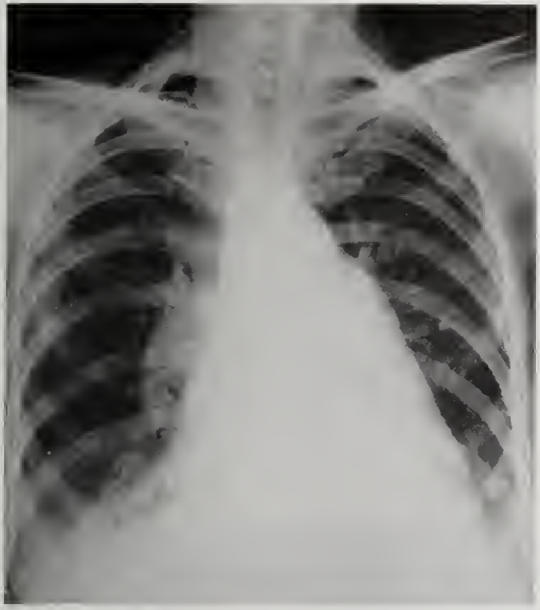

Fig. 6. Mitral stenosis with "Kerley B" lines visible in the costophrenic areas of both lung fields.

Just as the appearance of the aorta is often helpful in the differential diagnosis of left heart disease so is the pulmonary artery size and configuration of value in estimation of the right heart status. The anatomic position of the right ventricle makes it more difficult to evaluate in the roentgenogram than the left ventricle, and the appearance of the pulmonary artery and its branches plays a prominent part in the differential diagnosis of right heart disease. Enlargement of the pulmonary artery and its main divisions implies increased pulmonary tension or increased flow or both. Increase in size of the main pulmonary trunk suggests only isolated pulmonic valvular stenosis or pulmonary aneurysm (figure 8). Increase in size of the pulmonary artery and its branches throughout the lungs indicates increased pulmonary flow, usually secondary to a shunt of blood from the greater to the lesser circulation (figure 9). Enlargement of the pulmonary artery and its main branches out of proportion to the peripheral pulmonary vessels is characteristic of pulmonary hypertension (figure 10). Absence of the main pulmonary trunk shadow suggests infundibular stenosis or atresia.

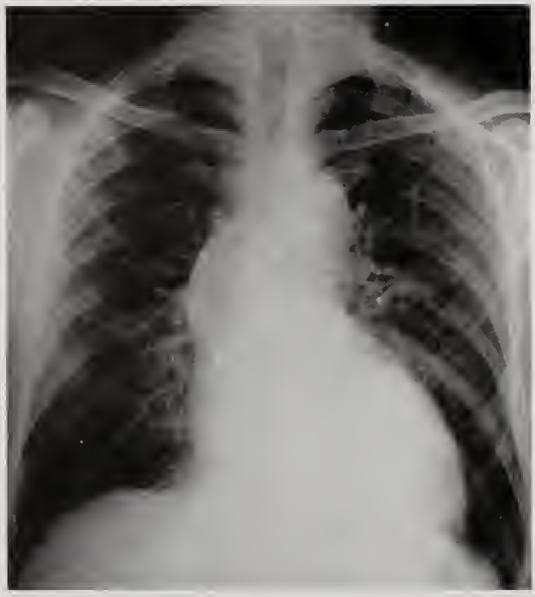

Fig. 7. Enlargement of the left ventricle in aortic insufficiency. The ascending aorta is dilated and calcified, characteristic of luetic aortitis, and suggests that the left ventricular enlargement may be on the basis of aortic insufficiency.

In conditions of increased pulmonary flow the onset of pulmonary hypertension may modify both the appearance of the heart and the pul-

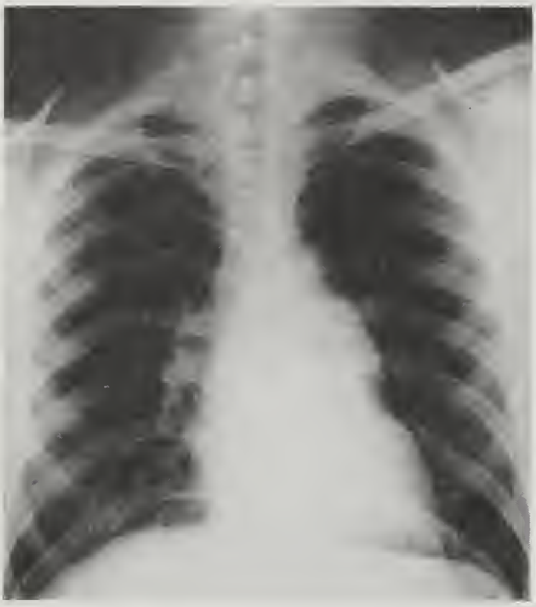

FIG. 8. Isolated pulmonic stenosis characteristically involves the valve with poststenotic dilatation of the pulmonary artery. Note the large size of the pulmonary artery in comparison to the normal or even small size of its main branches at the hila.

monary vasculature. In intra-atrial septal defect before the onset of hypertension the pulmonary vessels do not show the peripheral constriction demonstrated after onset of hypertension (figures 9 and 10). In intraventricular septal defect before pulmonary hypertension and with left to right shunt there is enlargement of the left atrium; this may be noted with elevated pulmonary pressure providing there is still considerable left to right shunt, and this atrial enlargement serves as a differential point in distinguishing intra-atrial and intraventricular septal defect by conventional methods. When the level of the pressure in the two circulations is the same without appreciable left to right shunt, the dilatation of the left atrium may be inappreciable,[6] and thus this valuable differential point between intra-atrial and intraventricular septal defects with pulmonary hypertension is lost. In patent ductus arteriosus with left to right shunt the left ventricle and left atrium may show enlargement with right ventricular hypertrophy with the onset of

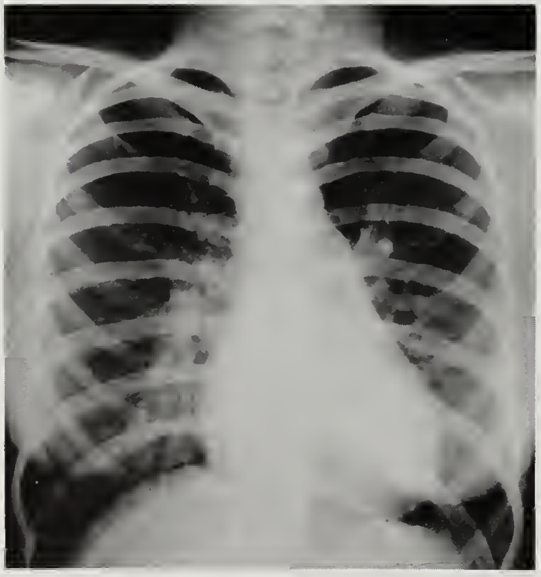

FIG. 9. Intra-atrial septal defect in which catheterization studies demonstrated a normal pulmonary artery pressure and left to right shunt. The pulmonary artery, its main branches, and the branches throughout the lungs are all dilated without disproportion in size.

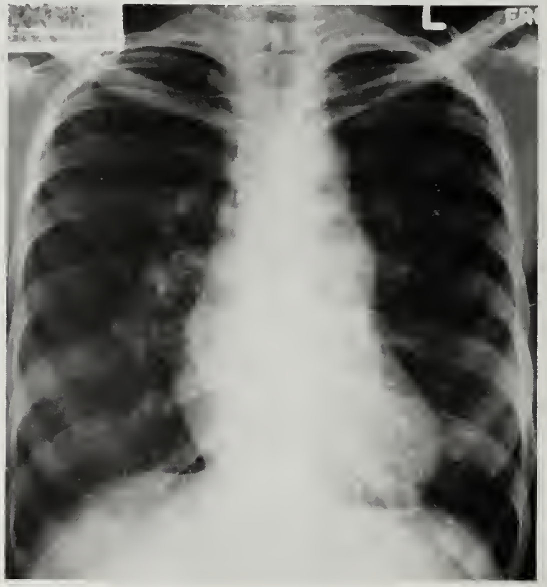

FIG. 10. Intraventricular septal defect in which catheterization studies demonstrated pulmonary hypertension. Now a disproportionate enlargement of the pulmonary artery and its main branches is manifest in comparison with the peripheral pulmonary vessels.

pulmonary hypertension. Here, a distinguishing characteristic from septal defect is a relatively prominent aorta.

Anomalies of the great vessels, such as coarctation of the aorta, vascular rings about the trachea and esophagus and congenital absence of one pulmonary artery, also lend themselves well to conventional roentgen diagnosis. The cyanotic group of congenital anomalies often demand evaluation in an earlier age group when conventional methods are less effective. In general, the longer a congenital anomaly exists before demanding attention on the basis of clinical symptoms, the more apt it is to provide characteristic features in the roentgenogram. The septal defects, patent ductus arteriosus and coarctation of the aorta, which lend themselves well to roentgen evaluation in later life, may present no early roentgen abnormalities as determined by routine methods.

The conventional methods of roentgen diagnosis in heart disease have not been outmoded by the more recent specialized procedures; rather, they have been complemented and are more useful today than ever before.

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THE SURGICAL TREATMENT OF ACHALASIA

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ACHALASIA is the most common cause of dysphagia in the female and second only to carcinoma of the esophagus in the male. The etiology of this fairly common disease is unknown, and this fact partially accounts for the variety of terms which have been applied to it. "Achalasia" (inability to relax) and "cardiospasm" have been used interchangeably. The term cardiospasm, however, is misleading because the disease is confined to the esophagus and is not a result of muscular spasm of the cardia. There are 2 patterns of the disease. The more common type is characterized by marked dilatation of the esophagus (mega-esophagus) except at its narrowed portion. In the other variety the esophagus may be somewhat dilated but does not assume the enormous proportions as in the more common type.

Various theories have been advanced to explain the disease. Degenerative changes in Auerbach's plexus have been demonstrated in connection with achalasia, and a few investigators have reported alterations in the fibers of the vagus nerve. Some authorities are convinced that achalasia and true mega-esophagus are completely different entities. Others consider them as different stages of the same disease.

It is often stated that patients with achalasia are neurotic and emotionally unstable. There can be no question that symptoms of achalasia are aggravated when the patient suffers emotional stress, but it is difficult to believe that a neurotic factor alone could account for this clinical entity. In fact, not infrequently patients with achalasia are called neurotic because their physician has failed to explain the dysphagia.

Clinical and roentgenologic findings are usually clear-cut. The disease may occur at any age. The youngest patient in the series at the George Washington University Hospital is 18 months old, the oldest 80. The majority of cases, however, occur in the late teen-age to middle 30's group. Sex incidence is about equal.

Typical symptoms consist of dysphagia, substernal or epigastric pain, and regurgitation. Not infrequently pain may be the first manifestation of achalasia. Pain usually occurs after swallowing, often with a sensation of obstruction in the neck or at a much higher level than the lower esophagus.

The onset of symptoms is often insidious, and careful questioning may establish a much longer duration of the illness than the patient himself appreciates. Self-imposed eating habits, hardly recognized by the patient, will minimize the symptoms for some time. Vomiting will vary from slight regurgitation of recently ingested food to massive emesis in cases in which the esophageal dilatation is large.

There may be some weight loss, but general nutrition is usually well maintained for long periods of time by frequent ingestion of small amounts of food and fluids as well as dietary tricks learned by the patient. The principal danger to life is aspiration of food and saliva during sleep, resulting in pneumonia or lung abscess.

A barium swallow will demonstrate the characteristic narrowing at the lower end of the esophagus with retention of barium above. In patients with enormous dilatation and displacement of the organ the esophagus may assume an S or J shape.

The appearance of the lumen of the esophagus varies, depending upon the amount of associated inflammation from retained food. If the inflammatory process is severe there may be bleeding and an erroneous impression of a neoplasm may result. The cardial orifice may be tightly closed, and then it is difficult or unwise to force the esophagoscope into the stomach. In some cases, however, the slightest pressure at the orifice of the cardia will make the passage of the instrument easy. The greatest importance of esophagoscopy is to rule out the possibility of carcinoma.

Temporary relief of the obstruction may be obtained by bougienage. The most efficient type of dilatation is with hydrostatic methods exerting high pressures. This is not without real danger of rupture of the esophagus. If there is not rather prompt and long-lasting relief from bougienage, the high incidence of success from direct surgical treatment of achalasia makes repeated bougienage undesirable and unacceptable.

In the past, several operations were employed for achalasia and are mentioned only for historical purposes. Mikulicz[1] advocated retrograde instrumental dilatations through a gastrostomy. Heyrovsky[2] performed a side-to-side anastomosis of the dilated distal esophagus to the fundus of the stomach. These procedures are now obsolete.

A useful operation in selected cases was described by Wendel[3] in 1910 which involved a longitudinal incision through all layers of the esophagus at the site of the lesion with a transverse closure of the incision.

In 1913 Heller[4] described his original operation which included longitudinal incision both anteriorly and posteriorly through the muscle layers of the lower esophagus and upper stomach. The Zaaiger modification of the Heller operation has eliminated the posterior incision and consists of incision only on the anterior surface of the esophagus and stomach. Results of the modern transthoracic operation for achalasia based on the Zaaiger-Heller have been most gratifying.[5] With increasing experience it is safe to state that unsatisfactory results are practically always because of an improperly performed operation, failure to recognize a coexisting hiatal hernia, or a weakness at the esophageal hiatus created when the operation is performed.

The patient with a cured achalasia but with a hiatal hernia is particularly vulnerable to reflux esophagitis, which is equally serious and will make him more miserable than the original disease.

The technical error which will result in failure is an incision of inadequate length and depth in the involved segment of the esophagus. All the longitudinal and circular muscles must be completely divided over and well beyond the involved portion of the esophagus.

REPORT OF CASES

Case 1. A 22-year-old woman was admitted to the surgical service of the George Washington University Hospital because of difficulty in swallowing for as long as she could remember. During early childhood regurgitation had been an intermittent problem. After the age of 10 swallowing food had become more and more difficult. At 14 she was told she had achalasia and was treated with antispasmodics and tranquilizers without benefit. She was told by several physicians she should consult a psychiatrist since her trouble was caused by nerves.

As her symptoms continued she became more withdrawn and developed a marked speech impediment. Eating in public became an embarrassing experience. She noted a sensation of food stopping in the lower chest. Frequent regurgitation was productive of foul, undigested food. In spite of this she was able to maintain her nutrition by eating small amounts frequently. Substernal burning pain was an associated symptom and caused her to sleep on 2 pillows. No respiratory symptoms were elicited.

On physical examination the patient was a tense, moderately well nourished person who spoke with a marked stutter. No other abnormalities were noted.

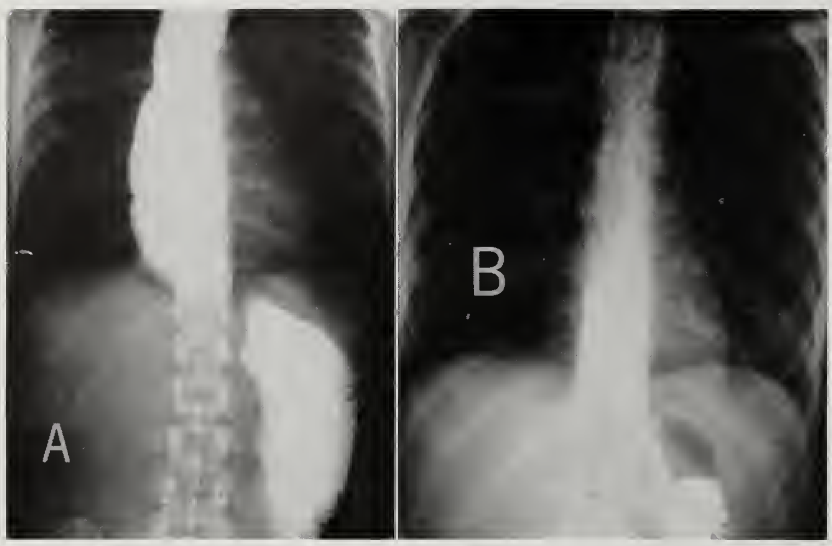

FIG. 1. Case 1. (A) Preoperative esophagram, showing moderate dilatation of the esophagus with constriction at the cardia. (B) Esophagram 7 months postoperatively—patient asymptomatic.

Barium swallow roentgenograms demonstrated a dilated esophagus proximal to a constricted segment at the cardia. The greatest dimension of the esophagus was 6 cm., with a width of 0.3 cm. at the constriction (figure 1-A). Esophagoscopy showed the lumen to be dilated and containing a large amount of undigested food. The number 9-50 Jesberg esophagoscope could not be passed through the distal constricted segment into the stomach.

On the third hospital day a Zaaiger-Heller procedure was performed. The patient had an uneventful postoperative course and was discharged on the eighth postoperative day.

During her follow-up visits she stated that she was able to eat all types of food without difficulty and was free of her distressing preoperative symptoms. In addition, her speech impediment had nearly vanished and she appeared a great deal more relaxed. A barium swallow roentgenogram 7 months after operation demonstrated a reduction in size of the esophagus and a normal cardia (figure 1-B).

Presently the patient is studying to be a laboratory technician and has returned to a normal social pattern.

Case 2. A 35-year-old man was admitted to the surgical service of the George Washington University Hospital because of difficulty in swallowing for 17 years. There had been a slow progression of difficulty in swallowing which persisted for the next 15 years. Dysphagia for liquids and dry solid food was his major problem, but he was also bothered by heartburn and regurgitation, particularly when he was in the recumbent position. Relief of his symptoms could be obtained by self-induced vomiting of undigested food, which he did frequently. In spite of the symptoms he was able to maintain his weight at normal levels and was not particularly alarmed by the various maneuvers his condition necessitated to maintain adequate nutrition. Twelve years before hospitalization an esophageal dilatation had been unsuccessfully attempted. The patient had been told that he had a duodenal ulcer. This was treated with appropriate medical care with satisfactory response.

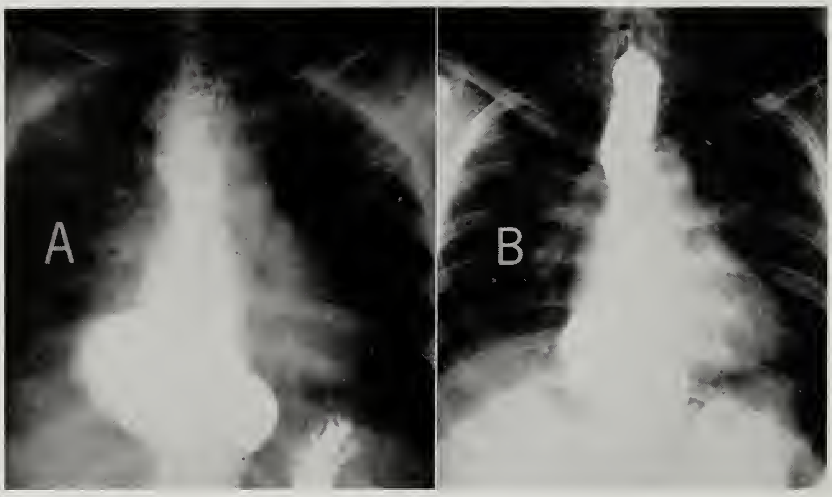

FIG. 2. Case 2. (A) Preoperative esophagram, showing enormous dilatation and tortuosity of the esophagus. A fine line of barium represents constricted segment. (B) Esophagram 1 year postoperatively, showing great reduction in diameter of esophagus, with constricted segment no longer present. Patient was able to eat all types of food without difficulty.

Three years previous to admission pulmonary tuberculosis was diagnosed and treated with antituberculous drugs.

He was a healthy-appearing adult with no evident physical abnormalities. Barium swallow demonstrated a markedly dilated J-shaped esophagus proximal to a stenotic segment at the cardia. The greatest diameter was 8 cm., with 0.5 cm. at the cardia (figure 2-A). An infiltrate was noted at the right apex in addition to several smaller densities in the upper lobes. At esophagoscopy approximately 200 c.c. of fluid was aspirated. The lumen was markedly dilated above a stenotic segment through which the number 9-50 Jesberg esophagoscope could not be passed. An unsuccessful attempt was made to pass a no. 24 French bougie. The esophageal mucosa was inflamed, redundant, and edematous.

A Zaaiger-Heller procedure was performed. The postoperative course was uncomplicated, and the patient left the hospital on the eighth postoperative day.

A bland diet was prescribed for 4 weeks following the operation and then gradually increased to a full diet. Within 8 weeks he was able to eat virtually any type of food without untoward symptoms. A year later he was found to have gained 20 lbs. A barium swallow demonstrated a marked reduction in the size of the esophagus and a free flow of barium through the cardia (figure 2-B).

Conclusions

Our experiences and observations of others suggest that many cases of achalasia are not treated correctly because the diagnosis is not considered. These patients are too frequently considered neurotic and treated with tranquilizers or advised to consult a psychiatrist before a complete diagnostic study is done.

If there are not prompt and lasting results from the conservative treatment of achalasia, surgical intervention should be recommended.

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DIAGNOSTIC PROBLEMS IN OVARIAN CARCINOMA

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RECENTLY a study was made of all patients with ovarian carcinoma admitted to the new George Washington University Hospital during its first 10 years, from 1947 to 1957.

Case histories of 114 patients with ovarian carcinoma were reviewed. Of these, 73 had primary ovarian carcinoma.

The study was originally initiated in order to determine the value of the treatment of ovarian carcinoma at the Hospital. After reviewing the primary symptoms, primary diagnosis, and location of growth, it was found that the correct diagnosis had been made in very few instances preoperatively. Attention was therefore turned toward the investigation of the diagnostic problems involved.

The treatment of ovarian carcinoma has been well standardized. Total abdominal hysterectomy with bilateral salpingo-oöphorectomy and omentectomy is the operative procedure of choice. X-ray treatment may or may not be used following surgery. Survival time is related almost entirely to the stage and type of ovarian carcinoma, regardless of what treatment methods are used.

Ovarian carcinoma is the primary diagnostic problem in gynecologic malignancy. The lesions of carcinoma of the vulva are obvious. Early biopsy with radical surgery carries a high survival rate. Few physicians would fail to recognize the need for this course of action. Cervical carcinoma is being recognized earlier by means of smear technic. There is a definite increase in the operative procedure for early, invasive and in situ cervical lesions. Carcinoma of the uterine fundus should also be recognized at an early stage, since almost invariably the main symptom is the well publicized postmenopausal bleeding. Diagnostic curettage is an easy and efficient method of detecting carcinoma, and treatment in the early stages is highly successful.

We seldom any longer see the delay in diagnosis and treatment of these 3 types of carcinoma, except in those cases in which the patient delays in reporting her symptoms to the physician. Ovarian carcinoma, on the other hand, presents a different problem. No symptoms develop from ovarian carcinoma until there is spread of the disease beyond the capsule of the tumor. There is still a tendency toward neglecting routine pelvic examination as part of general physical examinations. There is confusion as to whether to investigate undiagnosed pelvic tumors. Pelvic tumors of significant size are frequently observed for a number of years on the basis of physical examination alone.

Table 1 shows the total number of cases listed in the Pathology files. Of the 114 carcinomas,

TABLE 1

Ovarian Carcinoma 1947–1957

Total listed in Pathology files	114
Primary ovarian	73
Secondary ovarian	8
Uterus primary	6
Cervix primary	6
Breast primary	14
G.I. tract primary	5
Lung primary	1
Breast or uterine tube—primary(?)	1
Total	114

73 were found to be primary in the ovary. Of interest is the fact that the ovary is frequently the site of metastatic disease. This is particularly true with breast carcinoma. Why this occurs is not known, but once cells lodge in the ovary they seem to find a fertile field for growth. The tumors from the gastrointestinal tract were Krukenberg in type. In 3 of these patients no primary lesion was found in the stomach, and only after complete gastrointestinal examinations was the original lesion found in the large bowel.

Table 2 shows that only 8 of the entire series of patients were found to have ovarian tumors on routine examination. This, of course, represents the stage of ovarian carcinoma in which treatment is most successful. Patients who have pain or bleeding or abdominal distention almost invariably have tumors which have spread beyond the confines of the ovary. This situation represents an extremely poor prognosis.

TABLE 2

Symptoms

	No.	Per cent
Pain	18	25
Abdominal distention	14	20
Bleeding	11	15
Abdominal mass	9	12
Routine physical	8	11
Miscellaneous	13	18

Table 3 shows the duration of symptoms, which was quite brief in most cases. Those patients showing symptoms for more than 2 or 4 months generally had symptoms relative to some other pelvic disability associated with, but not secondary to the ovarian carcinoma.

TABLE 3

Duration of Symptoms

2 to 10 days	3
10 days to 1 month	6
1 to 2 months	18
2 to 4 months	9
4 to 6 months	6
6 to 8 months	1
8 to 12 months	5
1 to 2 years	3
More than 2 years	4
Routine pelvic examination	8
Unknown	10

Table 4 shows the preoperative diagnoses entertained on the chart prior to surgery. This is perhaps the most significant of the findings, in that only 8 of 73 patients had a recorded preoperative diagnosis of ovarian carcinoma. Undoubtedly this was considered in other cases, but if so it was not recorded as such. Only 32 of the group had the diagnosis of any type of ovarian tumor.

TABLE 4

Preoperative Diagnoses

Ovarian (cyst 15; tumor 9; carcinoma 8)	32
Fibromyomata	16
Pelvic mass	4
Abdominal tumor	4
Intestinal (obstruction 2; mass 2)	4
Acute appendicitis	2
Carcinoma of uterus	2
Carcinoma of bronchus and pleura	1
Atonic bladder (attached to fibroids)	1
None on chart	4
Terminal 1; no chart 2	3

The next most frequent diagnosis preoperatively was that of fibromyoma, given in 16 patients, or over 20 per cent of the group. Many of the patients had been "followed" for several years. Actually only 2 of the 16 had significant myomas at the time of surgery.

Other preoperative diagnoses showed the possibilities of confusion in diagnosis secondary to spread from the original tumor site. Pleural effusion mimicking some primary intrathoracic disorder and ascites were frequently the first sign of carcinoma.

DISCUSSION

The present treatment of ovarian carcinoma gives a 5-year survival rate of approximately 55 per cent. If the new growth is limited to the ovary the percentage goes up close to 90 per cent. Thus, a great deal depends upon the stage

(*Continued on page 196*)

SOME UNSOLVED PROBLEMS OF CARDIAC SURGERY

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SURGICAL procedures on the heart and great vessels are now commonplace. The heart can no longer be regarded as an inaccessible or inviolate organ. It is, rather, a sturdy muscular pump, capable of tolerating a considerable amount of manipulation for brief periods of time. The use of special technics, such as hypothermia or extracorporeal circulation, has rendered all parts of the heart and great vessels accessible to the surgeon. Older, blind, or indirect operations are giving way to a direct approach and definitive correction of cardiac lesions. Nevertheless, numerous unresolved problems remain in the field of cardiac surgery.

Cardiopulmonary bypass. The contributions of Gibbon,[1, 2, 3] De Wall[4, 5, 6] and Lillehei,[7] Björk,[8] and others have led to the development of machines which are temporarily capable of functioning in place of the heart and lungs. At the present time there are well over 20 types of heart pumps in use. Some have the advantage of simplicity of design and ease of operation. Others, more complicated, are capable of handling high blood flows, approaching normal cardiac output. Still others have the advantage of minimum trauma to the red blood cells.

The ideal pump oxygenator has not yet been developed. The bubble oxygenator, although widely used in recent years, is being discarded in many institutions because of its inability to oxygenate large quantities of blood rapidly. At the present time most oxygenators are based on technics of filming the blood in an atmosphere with high oxygen content. Filming may be accomplished by a series of rotating discs or by stainless steel screens on which the blood is oxygenated.

Possibly the artificial lung of the future will use the principle of a semipermeable membrane which will permit diffusion of gas without being permeable to blood. The ideal oxygenator will be capable of oxygenating large quantities of blood, maintaining a normal pH, and returning the blood to the body with no hemolysis or evidence of other change. Such a unit should have simplicity of design, ease of sterilization, and completely disposable parts.

A pump in taking over the function of the heart should provide flows equal to cardiac output without injury to the red blood cells. Most of the pumps used today employ the principle of rollers successively compressing a section of plastic tubing. Although pumps of this nature are clinically satisfactory, some trauma to the red blood cells is inevitable and some hemolysis therefore unavoidable. A pulsatile, valve-action pump which is atraumatic to the blood has not yet been developed. Although many advances have been made in this regard, continued coöperation of the surgeon, the physiologist, and the engineer is required to develop a completely satisfactory pump.

The ideal pump oxygenator should require a small volume of blood for priming. The logistical problem of obtaining large amounts of freshly drawn compatible human blood for each open cardiotomy is already a handicap, and the extension of the scope of surgery on the heart and great vessels will increase the demand for blood. At the present time most pump oxygenators require a minimum of 5 pints of blood for priming and an additional 7 to 10 pints for each case.

Both pumps and oxygenators, while not ideal, are moderately satisfactory. However, control of both during cardiopulmonary bypass is less than satisfactory in many units.

All pump oxygenators allow for balancing of arterial and venous flow by manual control of pump speed. In an adult on low-flow perfusion for a short time this is all that is required. With higher flow rates and longer perfusion immediate automatic correction of changes in pressure and flow is necessary to prevent serious overloading of the pulmonary or systemic circulation. This is of critical importance in the infant, in whom small variations of pressure and flow may do great harm.

Electronic sensing devices are being used more frequently in the control of extracorporeal circulation. Changes in blood level in the oxygenator, degree of oxygenation of the blood, flow rate and pressure can all be measured. In the ideal pump oxygenator correction for variation from the normal will be instantaneous and automatic.

Age: It is now well realized that the very young tolerate thoracotomy and major operative procedures in the chest quite well. Nevertheless, with our present methods, technics requiring extracorporeal circulation are poorly tolerated during infancy. Although cardiopulmonary bypass may be unavoidable in some instances during the first 2 years of life, the risk is fully 5 or 6 times greater than that during subsequent years. Consequently, if an infant can be carried to the age of 3 by supportive therapy or by an indirect surgical procedure, it is far preferable to the great risk of open cardiotomy.

"Size" and "sensitivity" are the critical factors in cardiopulmonary bypass at this age. The great majority of pump oxygenators are designed for adults and are too large and too clumsy for infants. There is a real need for a small, automatic pump oxygenator suitable for infants. Often the need for corrective surgery is greatest during the first 2 years of life when cardiopulmonary bypass currently has least to offer.

At the other end of the scale, patients in their sixth or seventh decade are also poor candidates for cardiopulmonary bypass. The risk in these individuals is not so much from age itself or from technical difficulties with cardiopulmonary bypass but from the irreversible degenerative changes which frequently result from prolonged cardiac disease. The remedy here is clearly better case selection and earlier surgery.

Congenital heart disease. Many of the common congenital lesions of the heart are presently amenable to surgical correction with a very modest mortality and morbidity rate. Atrial septal defects, both ostium primum and ostium secundum, may be corrected satisfactorily; ventricular septal defects, pulmonic and aortic valvular and subvalvular stenosis, and tetralogy of Fallot may also be completely corrected with the use of cardiopulmonary bypass. Anomalies of venous return with or without accompanying defects are generally correctable.

Transposition of the great vessels, a cause of severe cyanosis and death in the neonatal period or infancy, is as yet a major challenge to the surgeon. Attempts have been made to create shunts of various kinds between the pulmonary and systemic circulations,[9] to reposition the veins,[10] or to transpose the arteries with or without the left coronary artery,[11, 12] all without success. Baffes[13] has had some success with a palliative procedure in which the inferior vena cava is anastomosed to the left atrium and the right pulmonary veins to the right atrium. Recently Senning[14] has succeeded in repositioning the atria. The most attractive operation is that of Albert,[15] in which the atrial septum is rearranged so that the pulmonary veins drain into the right atrium and the venae cavae into the left atrium. Cardiopulmonary bypass is required for complete correction of this anomaly. Unfortunately, the infant with transposition who most needs help with closed septa and a closing ductus only lives a few weeks or months and with present technics has little chance of survival. Undoubtedly improvements in pump oxygenator design will enable the surgeon to transform an anatomic possibility into a physiologic reality.

Pulmonary hypertension as a result of a left to right shunt, usually a ventricular septal defect, occurs frequently. This accompanies changes in the pulmonary arteriolar bed. The increase in pulmonary resistance may lead to pressures in the lesser circulation and the right side of the heart which are equal to or higher than the systemic pressure, with reversal of the shunt. This has been termed the Eisenmenger complex. In this situation the congenital defect acts as a decompression mechanism, and when pressures are equal, or a right to left shunt is present, closure of the defect is usually fatal. Recent work has indicated that such septal defects may be closed either by the use of a patch with multiple perforations which seal off over a period of weeks or by closing the defect and at the same time creating an artificial patent ductus which then at a later date may be occluded. Results with these technics have been encouraging, but the overall picture in patients with the Eisenmenger complex is still discouraging in terms of surgical treatment. It seems apparent that if these defects can be diagnosed and remedied before irreversible pulmonary vascular changes occur, the results will be far better.

Ebstein's anomaly is a severe deformity of the tricuspid valve in which there is a marked basket-like formation of the valve itself with encroachment upon the right ventricle and marked right atrial enlargement. There is usually considerable distal displacement of the posterior and septal leaflets of the valve, which are attached to the ventricular wall rather than the atrioventricular ring, and frequently an accompanying patent foramen ovale or atrial septal defect is present. Right heart failure and cyanosis usually develop during childhood, and survival past childhood is uncommon. Attempts have been made to relieve the right ventricular outflow obstruction caused by displacement of the leaflets of the tricuspid valve, and to close the atrial shunt. Results, however, have been generally unsatisfactory or equivocal. Complete correction of this anomaly may have to await the development of a prosthetic valve.

Acquired valvular disease. The results of surgical correction of mitral stenosis have been exceedingly gratifying and in some instances spectacular. Digital commissurotomy of the mitral valve may be accomplished with a minimum risk and good results may be anticipated, provided the obstruction has been properly relieved. Recent use of a dilator introduced through the left ventricle and passed through the mitral orifice in a retrograde fashion, where it may be guided by an index finger introduced through the atrial appendage, has further increased the surgeon's ability to perform an adequate commissurotomy. Digital fracture of a stenotic tricuspid valve may also be performed with satisfactory results.

The surgical treatment of acquired aortic valvular stenosis is a greater challenge to the surgeon. It is essential that fracture be accomplished along the lines of the commissures of the aortic valve, and blind technics with a valvulotome leave much to be desired as far as accuracy of commissurotomy is concerned. Open operations in which the diseased aortic valve is directly visualized through an opening in the proximal portion of the aorta seem to offer a far better chance of adequate anatomic division of the commissures. This has been accomplished either by the use of hypothermia or cardiopulmonary bypass. However, the risk of either technic is considerably greater than the risk involved with similar technics for correction of congenital defects. Such patients are usually in an older age group and have considerable myocardial disease and are particularly prone to ventricular fibrillation. The technic of perfusing the coronary arteries with oxygenated blood during the period when the aorta is open may reduce the incidence of fibrillation. The overall result of operation for this disease has been encouraging. Nevertheless, the problem of selection of patients is still poorly defined, and the operative risk is somewhat higher than with congenital lesions.

The surgical treatment of insufficiency of the mitral or aortic valve is less satisfactory than the treatment of stenosis. Such valves are markedly deformed, and in many instances there is loss of valve substance. These valves do not readily lend themselves to reconstruction. Indirect procedures, such as insertion of the Hufnagel valve in the descending thoracic aorta for aortic insufficiency, are helpful in selected cases but do not correct the basic disturbance. Circumferential suture of the annulus of the mitral valve has been disappointing and the late results unsatisfactory. More recent technics involving direct visualization of the deformed valve and plastic revision of the cusps have been encouraging. In the case of the mitral valve, decreasing the size of the annulus fibrosis has decreased the degree of valvular insufficiency and offers the opportunity for simultaneous correction of combined mitral stenosis and insufficiency. Direct operations on the aortic valve with the use of synthetic patches as support or baffles seem to offer additional promise in the treatment of aortic insufficiency.

Nevertheless, the development of a synthetic valve to completely replace the diseased leaflets seems to offer the greatest promise of optimum results. A synthetic valve would of necessity have to be easily placed and produce no tissue reaction and yet be capable of forming an endothelial cover. This valve would have to be strong enough to withstand years of wear yet delicate enough to avoid hemolysis and should be placed at the annular ring easily and permanently. Synthetic valves having the above characteristics are being developed in various experimental laboratories throughout the country at the present time.

SUMMARY

Further advances in cardiac surgery will center on the problems of improved pump oxygenator design, particularly for infants under 2 years of age, better case selection, and earlier surgery in order to avoid the irreversible consequences of prolonged cardiac disease in older people, and the development of prosthetic valves for replacing valves deformed beyond repair, congenitally or by disease.

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COÖRDINATED TEACHING OF TOTAL PATIENT CARE

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IN PRESENT-DAY medical teaching the student is exposed continuously to highly specialized instruction and frequently develops an interest in some particular specialty early in his medical training. The complexity of modern medicine makes this approach necessary but may fail to impress the student physician with the problem of treating the patient as a whole.

Recognition of this problem has brought about the establishment of a special program at the George Washington University School of Medicine devoted to the teaching of total patient care. This program is directed toward the solution of social, vocational, psychologic, and medical problems in an effort to restore the patient to optimum capabilities. The program was established in 1953 under a grant from The National Foundation, administered by an interdepartmental unit, and carried out at the University Hospital with numerous specialty departments participating. The supervision of the program is exercised by a committee under the chairmanship of the Dean of the School and composed of faculty representatives from the Departments of Medicine, Physical Medicine and Rehabilitation, Surgery and Psychiatry.

The new unit introduced the teaching of the concept of total patient care into the established curriculum of many departments. Under this program, students in the preclinical years receive formal instruction in the broad aspects of rehabilitation. Patients are presented with multiple medical and psychosocial disabilities in an effort to emphasize total patient care. In the clinical years, students participate in a team conference, which has proved to be the most effective means of demonstrating this approach.

The conference is attended by senior medical students as well as house staff, nurses, and allied medical personnel. At these conferences a medical student presents the case of a selected patient with complex medical and social problems. Additional discussion may be contributed by an appropriate medical or surgical specialist. The rehabilitation counselor presents the psychosocial and vocational history and poses specific questions relative to the patient's eventual adjustment. Representatives of various community agencies are invited to the conferences and often provide pertinent information. During the conference discussion by a physical therapist or occupational therapist may add valuable information concerning the patient and also serves as additional educational background for the medical students. The student becomes aware of the important roles of these allied medical assistants in the total care of the patient, and the team approach is demonstrated.

The team conferences are arranged for either hospitalized patients or outpatients who present challenging medical and social problems. The students acquire broader knowledge as well as experience in the psychosocial and vocational needs of the patient. A psychiatrist usually summarizes the psychiatric problems of the patient and often discusses the reaction of the team to the patient's disabilities. Different disabilities are presented at each weekly conference, with appropriate specialists attending.

From these teaching experiences the students usually gain some understanding of the basic philosophy of total patient care and a recognition that in long-term illnesses medical care alone may not solve the patient's problems. In many instances help from paramedical personnel, such as physical and occupational therapists and trained rehabilitation counselors, may be essential.

The interest aroused by the total patient care approach made it necessary to arrange for long-term follow-up of patients. In order to demonstrate to the medical student the methods and effectiveness of total patient care a Continuity Program was established in the Department of Medicine on a pilot basis in 1956. Under this program each student is assigned 1 long-term patient under the advisory supervision of a faculty member. The program is designed to permit the student the opportunity of following a patient with a chronic disease over a continuous period of time. For a 6-month period the student assumes personal responsibility for his patient, developing a constructive doctor-patient relationship similar to that encountered in private practice. In the selection of the patient the following rules are observed:

1. The patient should present an interesting medical problem from which the student can benefit by long-term contact.

2. The patient should present psychosocial and vocational problems which would stimulate the student to provide total care in these areas.

3. The patient should have a record of regular clinic attendance and live within a short distance of the hospital in order to permit home visits by the student.

The student is required to make 1 or 2 home visits and meet with his advisor at regular intervals. At the end of 6 months the student presents his experiences in the form of a written report, including the initial history and physical examination, diagnosis, progress, management, home visits, and recommendations and disposition of the patient in the medical, psychosocial, and vocational areas. A short paper dealing with some interesting aspect of the disease entity also is included.

The student's approach in the Continuity Program continues to be based on total patient care. He is required to make an evaluation of the patient's psychosocial, vocational and medical problems. In this way the student has an opportunity to recognize the contributions and functions of the allied medical disciplines, and to work with different specialists as part of a team. He may thus develop for his patient a coördinated medical care program, utilizing hospital and community resources. He is required to utilize various resources in becoming acquainted with the medical aspects of his patient's disease; this includes a thorough review of the literature, attending appropriate meetings, and arranging direct consultation with specialists.

Our experience with this program to date does not permit a final evaluation of the effectiveness in teaching total patient care. An attempt to evaluate the Continuity Program is made each year by means of a questionnaire given to students, patients and advisors. The most favorable responses were received from the patients. Many of them who had formerly attended various clinics expressed great satisfaction from the benefits of a continuous physician-patient relationship. The majority of the students gained satisfaction from a program which placed them in the position of responsibility for an individual patient. Students also felt they benefited from their association with their faculty advisor and other specialists in medical and allied medical areas. The advisors derived satisfaction from the students' development of independent patient management.

Perhaps the most important aspect of this teaching program can be demonstrated by improved patient care. This can best be illustrated by the cases summarized below.

Illustrative Cases

Case 1. A 17-year-old diabetic female who had been hospitalized 23 times during the preceding 3 years was referred to the Continuity Program. The student assigned to the case during the patient's hospitalization summarized her previous admissions and obtained summaries from other hospitals. On the last day of the patient's hospitalization a team conference was arranged at the student's request. Participating were the medical resident, the Chief of the Diabetic Clinic, the student's advisor (a psychiatrist), a visiting nurse from the Department of Public Health, the rehabilitation counselor, the mother of the patient, and a visiting teacher from the District of Columbia Public School System.

It was agreed the patient presented an uncomplicated case of juvenile diabetes. She had borderline schizophrenia; she had chosen the hospital because it appeared to her to be a friendlier place than her home and, therefore, she did not give herself insulin as prescribed. The team conference decided a visiting nurse should see the patient daily at home to administer insulin and that she should attend the Psychiatric Clinic. It also recommended that she be given an opportunity to serve as a hospital volunteer worker on the ward she liked so well as a patient.

The case seemed to be solved, but soon the patient refused psychiatric care and later discontinued her volunteer work on the ward. During this period the student made home visits and adjusted the insulin requirements in coöperation with the visiting nurse. The patient's diabetes appeared to be well controlled at home.

The student then suggested regular attendance at school instead of home instruction. He arranged a conference with the visiting nurse, the rehabilitation counselor, and the school authorities. The patient was placed in a vocational school to receive training as a nursery school aide. She requested return to the Psychiatric Clinic. During the student's continuity program the patient had not been readmitted to the hospital for a period of 9 months.

The student learned the medical problems of a juvenile diabetic by practical experience and by making a wide search in the literature, stimulated by his advisor, the Director of the Diabetic Clinic. He also learned total patient care and that prescribing insulin, as was done during 23 hospital admissions, was not sufficient in this case. He also had the personal satisfaction as a physician of having helped a desperate patient by guiding her during a continuous and extended period of time.

Case 2. A 36-year-old colored man came to the Clinic in December, 1957 with a chief complaint of severe headaches. Essential findings revealed a blood pressure of 240/150, loss of visual acuity, severe retinopathy, and shortness of breath. These findings suggested the accelerated phase of hypertension. He was referred to the Hypertension Clinic, where he was placed on antihypertensive drugs. Complete rest was advised for 3 weeks, and he was told to avoid strenuous labor later. Intelligence testing showed an I.Q. in the mid to upper range of average. He was given supportive counseling to gain understanding of his disability.

Because the patient was without work and without funds he was referred to several community agencies for selective job placement and for job analysis and work tolerance evaluation. When he completed the evaluation, one agency planned to hire him as a janitor and engineer when such work became available. However, the patient himself secured a job, which required the shoveling of coal, as a janitor in an apartment house. This work involved excessive physical effort and resulted in a rise in blood pressure to pre-treatment levels despite medication. The patient was advised by the student physician that he could not continue this work without further impairing his health. In January, 1959 he was placed in a janitorial job. This work proved within his limitations, and his hypertension remained at a controlled level. He has remained on his job for several months and is doing well. He has assumed supervisory duties and has received a wage increase.

This case demonstrates the value of long-term follow-up which provided appropriate medical care, but which, without help in the psychosocial and vocational areas, would not have been solved by medical effort alone.

N. B. The authors wish to acknowledge the contributions of the medical and allied medical specialists who helped to make the program effective.

President's Page

PLANS FOR THE FUTURE

At the business meeting of the Society in November of 1959 an increase in the annual dues of its members was recommended and overwhelmingly approved. A brochure had been distributed to all members outlining the many services which are provided by the Society. The cost of providing these services has increased steadily over the years and a continuation of this trend is inevitable if we are to successfully compete for the employment of competent personnel. The fact that we have operated in a sound fiscal manner is a tribute to the careful planning and management of the Secretary. The increase in dues guarantees a continued smooth and efficient administration. One of the first things the Executive Board will be able to do with the increased income is to accelerate the repayment of the balance of the loan which was obtained for completion of the remodeling at 1710 M Street. And lastly, an amount will be set aside each year in a "building fund" to be used at a time and in a manner which are yet to be determined.

The present facilities of the Society leave much to be desired, in spite of the recent space gained by the remodeling of 1710 M Street. The time is not too far off when major changes will have to be made. There will be needed additional office space for the administrative staff, Medical Bureau, committees, and the Executive Board. Facilities for scientific meetings are also inadequate. The auditorium has a capacity of 486. This is too small for large meetings of the Society and too large for most meetings of sections or limited membership societies. The library was never designed as a meeting room, but it is used for this purpose almost daily.

I believe this is a good time to take inventory of what we have and what we will need. We must make plans for the future and implement these plans by means of moneys accumulated in a building fund. I have requested the House Committee to undertake a comprehensive study of this matter as rapidly as practicable. Here are some of the questions the Committee will have to consider:

1. What are the most pressing needs at this time?
2. Are we making the most efficient use of our present facilities?
3. Should we undertake any further remodeling at this time?
4. Will the present buildings be adequate in 10 or 15 years?
5. Should we rebuild in the present site?
6. Would a building in another location be more or less advantageous? In considering this particular question sufficient consideration should be given to the relative advantages of the present central location, within walking distance of doctors' offices, and business or Government agencies. Would relocation in a less central area be more convenient for night meetings, possibly providing parking facilities?
7. What kind of building should the Society own?

Our present auditorium building is a one-purpose structure, and from the purely investment angle its value is necessarily limited. Fortunately, the ground value of our 2 buildings has risen appreciably over the years and is far greater than the original combined cost of ground and improvements. The capital equity which this represents provides a substantial base for the eventual construction of a large office building. The Medical Society would occupy whatever space it needed and derive substantial income from the balance of the building. It is conceivable that many allied organizations would wish to have space in such a building.

It is obvious that a study of this matter will take time and require competent professional advice from our legal counsel, realtors, architects, engineers, and others. Results of the study, with pertinent recommendations, will be forthcoming as soon as it is completed.

Victor R. Alfaro.

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Brig. General James H. Forsee, M.C., U.S.A.
Chief, Professional Services, and Deputy Commander, Walter Reed Army Hospital Walter Reed Army Medical Center

Walter Kurland, M.D.
Admitting-Personnel Physician,
Veterans Administration Hospital

Alvin E. Parrish, M.D.
Associate Professor of Medicine, and Associate Dean,
George Washington University School of Medicine

Captain Herschel E. Richardson, M.C. U.S.N.
Assistant Chief of Medicine, National Naval Medical Center

Luther Terry, M.D.
Chief, General Medicine and Experimental Therapeutics Branch,
National Heart Institute, National Institutes of Health

Colonel Frank M. Townsend, M.C., U.S.A.F.
Director, Armed Forces Institute of Pathology

Editorials

GHOSTS UNDER THE BED?

The following quotation is from an address by a former President of the Medical Society:

"During the present year the class of 'membership by invitation' has been increased by the election of thirty-five men, coming from the medical corps of the Army, Navy, and Marine Hospital Service, the three chief officers of these corps being included in the number. This is a full and complete restoration of the *esprit de corps* and comradeship which subsisted in the earlier period of the history of this Society, but had practically lapsed for many years past, due, perhaps, more to inadvertence than to intention. That you may the more fully realize the importance and significance of this restoration, let me recall your attention to the active and direct participation of surgeons in the Army and Navy in the foundation and organization of this Society and of the Medical Association. Thomas Henderson and Richard Weightman, of the Army, and Samuel Horsley, of the Navy, were founders. Henderson and Horsley were present

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia

at the meeting of the physicians of Washington and Georgetown, September 26, 1817, called to consider the expediency of the 'organization of a medical society.' The former was one of seven appointed, at that meeting, to 'draft a constitution and by-laws' and at the first meeting, held after the adoption of the report, Weightman was elected Librarian, and Henderson Recording Secretary, to which office the latter was reëlected at the first meeting (March 8, 1819) held after its incorporation. These incidents in the early history of this Society affirm the close relation and active coöperation of the two military corps, through their distinguished representatives, in the preliminary organization and the foundation of a medical society which has continuously maintained an active existence in commemoration of the wisdom of its founders. In 1820 Edmund Cutbush, of the Navy, and in 1822 Joseph Lovell, the first Surgeon-General of the Army, were admitted to membership; and throughout the entire period . . . there has been a continuous succession of membership of Army and Navy surgeons.

"Strange as it may seem, it is nevertheless true that Surgeon-General Lovell was the founder of the Medical Association of the District of Columbia. Thomas Miller, in his inaugural address, delivered upon his accession to the presidency, states distinctly that the preliminary movements to effect the organization were suggested by General Lovell and that he furnished a transcript of the rules and regulations of a similar society in Boston for the instruction and guidance of those associated in its establishment. Lovell and Henderson were members of the committee to draft 'a system of ethics and fee bill.' Lovell was elected one of the counsellors at the first meeting, and Henderson was the author of the address to the public to explain the objects and purpose of the organization and quiet the discontent and animosities which had incited the community to threaten acts of violence.

"The active influence of Lovell and Henderson in the organization and permanent establishment of the Medical Association of the District of Columbia seems to have been entirely forgotten. It was formed to unite the profession into one concrete body, upon the basis of high professional character and decorum, and to establish and maintain uniformity of professional relation and intercourse between its members, thereby segregating the pretenders, charlatans, and men of low and doubtful repute, and, at the same time, present the profession to the community as a body of gentlemen animated by the highest impulses of honor, dignity, and the obligations of Christian physicians. The wisdom of its organization has been attested by its history.

"The interesting and pertinent facts are that Army and Navy surgeons were actively instrumental in the organization of the two medical societies in the District, . . . and that the profession of this District owes to two Army surgeons the inception, organization, and successful defence of a society, established in 1833, to define and prescribe the rules and regulations of ethical intercourse and relations of medical gentlemen and of the profession with the public. Such historical events ought to guarantee permanency of good feeling and harmonious coöperation in all the relations of professional life and association between the members of these military corps on duty in this District and the profession, with so many of whom they may be brought into the closest professional intercourse.

"And now, gentlemen of the Government service, in view of the foregoing citations of the early and recent incidents of our history, I offer you the greetings of a cordial and fraternal friendship, and bid you welcome to the home of your sires.

"And I offer you the congratulations of a record without one negative vote on the admissions of thirty-five men."

In the light of the foregoing it is hard to understand the opposition of a member of the Medical Society to a proposal of the Executive Board that physicians of the Army and Navy and Air Force in Washington be permitted to apply for Active membership in the Medical Society. The fear was expressed that "there were so many of them that they might be able to outvote us." Seeing ghosts under the bed is not forward-looking and it is incredible that an intelligent doctor could take such a position. Even if there were mathematical merit to the objection, which there is not, there will not be found many officers asking to pay $70.00 per annum for the privilege of joining up with an organization of nonfraternal brethren.

For those who are historically minded it may be noted that the above quotations are from an annual address delivered on December 19, 1894 by the President of the Medical Society, Samuel C. Busey, M.D., LL.D.

The Society could well afford to be more statesmanlike than to table the proposal made by the Executive Board on this subject.

H. P. R.

THE HOSPITAL ADMITTING OFFICE

It may be stated without fear of successful contradiction that the administration of a hospital is much more complex than a casual appraisal would reveal, and, furthermore, many of the major problems are associated with the admission of patients. One of the most difficult positions to fill is that of the admitting clerk. The duties of a room clerk at a hotel are child's play in comparison. The administrator of the hospital can sit back in a comfortable chair and analyze the cost of food, battle with the ever-escalating payroll, listen to the wailing of the superintendent of nurses in respect to shortage of help, or stare at the red ink in the annual report, but he does not deal directly with ill individuals.

A well organized admitting team is a joy and comfort, which must live up to the expectations of the public and the physicians who staff the hospital. Graduate nurses are best equipped for such a position. What is expected of them? Someone must be on duty 24 hours daily, prepared to answer the phone promptly and pleasantly, to furnish information at once about accommodations, rates, and posting of the operative schedule, receive orders for laboratory examinations and medications, secure special nurses, and notify the attending doctor when the patient is admitted. If the diagnosis is requested, it opens an avenue for a lively discussion. Is the patient an alcoholic? Is he comatose or delirious? Is he prepared to make a deposit? Has he insurance and, if so, what type? These are just a few items calculated to promote ad libbing unlimited.

Requests are often made to admit a patient who should be excluded for such reasons as alcoholism, mental disorder, or financial irresponsibility under the guise of anemia, nervous exhaustion, gastritis, or similar benign conditions. The helpless paralytics often become an insurmountable problem for the relatives, and efforts are made to transfer the care to a hospital, often when there are no funds. The admitting officer conducts a filter through which the eligible patients must pass. Only years of experience qualify one to make such decisions; mistakes are excusable but expensive.

The first impression made upon a prospective patient when presenting himself at the desk of the admitting office is usually a lasting one and may dominate his entire visit in the hospital. The appearance and friendly manner of the nurse in obtaining the necessary information for admission may establish a cordial relation or stir up a resentful attitude. The competent nurse realizes she is dealing with an apprehensive and often ill person and knows that sympathy and tact offer the proper approach to obtain the information required by the hospital (partly) as follows:

Full name (if a married female, including her maiden name), age, date and place of birth, address, phone number, hospital number, doctor in attendance, accommodations requested, diagnosis, date and hour of admission, occupation and employer's name and address and telephone number, religion, type of insurance, if any, nearest relative or friend, address and telephone number, date of previous admission to the hospital, and, if a deposit is made, a receipt. This routine is repeated many, many times daily and taxes the endurance, physically and mentally, of the parties involved.

There are numerous annoying details that could be added to this formidable list, such as the patient's late arrival or failure to arrive, lack of deposit, location of the room, special diet, visiting hours, allergies, and idiosyncrasies.

The experienced admitting nurse is a tireless, cheerful, and intelligent psychologist. May the tribe never grow less.

C. S. W.

MEDICAL JOURNALS TAKE ON COLOR

The delight of the human eye in color doubtless goes far back into unrecorded time. The natural world is resplendent with color; the skies, the fields, the forests, the seas, even the earth itself all contribute. It was doubtless still in unrecorded time when first a man experimented with his own color combinations and color became an art. The appeal of color to the esthetic sense has never wavered.

Indeed color is interwoven with the emotional and mental armamentarium of humankind. An angry man sees red; a healthy one is in the pink; a depressed one has the blues. The poltroon is yellow. The novice is green, and the envious are green-eyed. High-flown rhetoric is purple prose. A vivacious and interesting personality is colorful. The scholar goes into a brown study. Thomas Beer characterized the nineties as the mauve decade. Tropes, to be sure, but they testify to our innate ingrained interest in and response to color.

But color appeals not only to the sense of decor. It appeals also to the attention. It arrests the eye. It is small wonder therefore that color, in due course, came to be utilized in association with the printed word. The only wonder is perhaps that the association came about relatively late. In any case the marriage proved to be both permanent and successful, and color played a steadily increasing part in the joint enterprise, finding its métier both as beautifier and as the getter of attention.

The latter aspect has been of particular interest to those with merchandise to sell, and it is quite possible, even probable, that the first color used in a medical journal was used in an advertisement rather than in illustrating a text. In any case, in late years the use of color in medical advertising has increased almost beyond credence. The pressures of competition are terrific, and the advertiser has turned to the heavy use of color in the endeavor to focus attention on his product.

When color is used to illustrate a medical paper, however, the emphasis is not, of course, on getting attention. Nor is color used for purposes of decor. At least it should not be, although a reader is sometimes prompted to believe that an illustration in color has been employed for no better reason than to "pretty up" the article.

It should be obvious that there is only one sound reason for the use of color (or any illustration for that matter) in a medical journal. What that reason is should also be obvious: It is to inform, teach, educate. Whenever color can serve the educational purpose, it is bound to be used. And since it can serve that purpose so effectively, there is bound to be more and more color used.

Indeed there is at least the hint of a sort of language of color. In anatomical drawings, for instance, red has come to mean an artery, blue a vein, yellow a nerve, and green the lymphatics. Should conventions of this sort broaden and become fixed, it may be all but unthinkable to illus-

PLANNING FOR AMEF FUND BENEFIT

DR. LUTHER H. SNYDER, Chairman of the Medical Society's American Medical Education Foundation Committee, is enthusiastic over plans for a fashion show benefit which the Woman's Auxiliary to the Medical Society sponsored, January 12. The proceeds were used to augment the AMEF fund. MRS. CHARLES HORNER (left) was General Chairman of the luncheon, held at the Sheraton-Carlton Hotel, and MRS. GEORGE W. WARE was chairman of contributions.

trate certain matters without the use of color—black and white simply would not be sufficient to convey meaning, just as words of one syllable are inadequate in all but the simplest speech.

One factor slows up the transition to color, however. Were it not for the appalling cost, undoubtedly medical journals would become riotous with color. The use of "flat" color is not too costly, but when four-color process plates are employed, the cost is, in many cases, prohibitive. Like everything else the cost of engravings has mounted, but for some reason the costs have increased disproportionately; they are higher relative to other printing costs than they were 30 years ago.

Not only so, but process color puts an added burden on presswork. Greater care is demanded to make colors match what they are presumed to match, and to procure precise, hairline register. Otherwise the illustration does not illustrate and it may mislead rather than inform.

The problem of cost of color is a perennial and is as yet unsolved. It may be that solution will come by some means other than letterpress. There are presently on the market medical works illustrated with slides that may be fitted into stereoscopic devices. While sets of such slides are priced at four or five times the cost of a medical book, they provide a far greater number of color illustrations, and it is likely that a medical book as richly illustrated would cost more than the slides. And the reader gets a 3-dimensional effect as a lagniappe.

Possibly the solution of the cost-versus-color problem lies in some such direction. But the solution is not just around the corner.

ROBERT S. GILL
Chairman, Board of Directors,
Williams & Wilkins Company

MEMBERSHIP

The following applicants for membership will be voted on at the meeting of the Executive Board, April 25, 1960.

For Active Membership

Boyd L. Burris, University of Tennessee—1952
James H. P. Garnett, George Washington University—1950
Alfred O. Ludwig, Harvard Medical School—1930
Eleanor L. Makel, Meharry Medical College—1943
John B. Meyer, Georgetown University—1956
Albert J. Miele, George Washington University—1954
Harold Heacock Orvis, Columbia University—1952
William A. Weiss, Jefferson Medical College—1938

For Associate Membership

Theodore R. Austin, Vanderbilt University—1932
Joseph C. Evers, Georgetown University—1955
Arthur W. Haelig, Columbia University—1952
Chi-Chin Huang, Tokyo Imperial University of Japan—1946
Assad Shahady Khoury, American University of Beirut (Lebanon)—1949
Claire F. Ryder, Tufts College—1944

For Resident-Intern Membership

Irwin H. Ardam, New York Medical College—1954
Gilbert Reed Clark, George Washington University—1957

In and Out of Focus

BY THE OBSERVER

"I Feel Confident..."

As regular attendants at medical conventions can testify, most programs are spotty. Seldom are the presentations of uniformly high quality. If in a 3-day meeting there are 2 or 3 outstanding presentations, that is a pretty good batting average. So it is not surprising that as the meeting progresses, and especially toward its close, the audience manifests its weariness in several ways, usually by being restless, or by leaving the room.

It is a pleasure to report that in contrast to such programs, that presented in connection with the Blue Shield's Professional Relations Conference, held in Chicago, February 1–3, was decidedly superior. In fact, there were so few weak spots that the large number who registered for the meeting, many of whom were physicians, stayed on to the finish with no indication of haste to get away.

Several of those in attendance with whom your Observer talked agreed that the majority of speakers were articulate, had their material well in hand, and "knew how to tell their story." The only criticism which might be made was that some of the speakers were not as objective as they might have been in their presentations. This was not true of Mr. Malcolm L. Denise, Vice President of the Ford Motor Company, in charge of Labor Relations. Mr. Denise left no doubt in the minds of his listeners that he was "sold" on Blue Shield Plans and very much opposed to a Government system of medical care. However, that did not deter him from discussing the merits and shortcomings of the Blue Cross-Blue Shield Plans objectively.

"Our principal employe coverage for basic hospital-surgical protection is through Blue Cross-Blue Shield Plans. Our employes are enrolled under more than 40 of these local Blue Cross-Blue Shield Plans.

"We attempt to select from the coverage available at each location that which provides the most nearly uniform protection for all our employes. Our standard is the Michigan Blue Cross Comprehensive Plan and Michigan Blue Shield's M-75 program. Briefly stated this standard calls for 120 days of hospital care on a service basis in semi-private accommodations; surgical and in-hospital medical care on a service basis from participating doctors for persons whose annual income is less than $7,500; and certain professionally rendered diagnostic and therapeutic services.

"Since Blue Cross-Blue Shield Plans are local organizations, the plans which they develop are designed to meet local needs and are influenced by local considerations. Nevertheless, Blue Cross hospitalization coverage is, with few exceptions, uniformly adequate. In many instances, however, local Blue Shield organizations have not offered plans as comprehensive as Michigan Blue Shield.

"This situation has led to considerable agitation on the part of the UAW [United Auto Workers] to have the company join it in threatening or attempting to force Blue Shield Plans into providing programs that meet the standard established in the bargaining agreement. The bargaining agreement calls for the Company to endeavor to attain the standard in outside-Michigan locations, but it does not require joint company-union action, and. . . we have not engaged in it. For the most part, the Company has worked through Michigan Blue Cross-Blue Shield, our Host Plan, and Michigan Blue Cross-Blue Shield has advised other Plans of our purchase objectives. Upon occasion, when it appeared this might be fruitful, we have, in addition, treated directly with other Plans. We have always made it clear that our purchase objective is a plan for Ford employes that will be available in the community generally. We feel that any attempt to secure an exclusively Ford contract could result in undermining the community approach.

"This arrangement has worked fairly well in one sense. At the present time approximately 75 per cent of our hourly employes have coverage which is consistent with, although not necessarily identical to, the levels set forth in our bargaining agreement. However, this sizable majority is covered by a relatively few Blue Shield Plans. To be specific, 9 Blue Shield Plans meet the standard; 27 as of this date do not. A few of these 27 Plans have offered to provide coverage which meets the standard, but at rates which we considered unrealistically high.

Most of these 27 Plans appear to be unwilling or unable to provide the type of coverage which we want our employes to have.

"We are not unaware of the variety of factors which come into play when a Blue Shield Plan considers offering a new contract in the community. We know that the interests of groups with differing objectives must be balanced and compromised. At the same time, we cannot escape the feeling that some Plans are giving insufficient weight to developing trends in public attitudes toward the provision of medical care."

At the conclusion of the above statement Mr. Denise presented some personal observations, which were in essence as follows:

> "The effect of this technic [using group experience rating] is to throw poor risks into groups which require high premium contributions—or if the rate is not increased then such groups are singled out and given lesser benefits. One result of this situation, especially as it affects older persons, is to bring forth attempts to pass such legislation as is embodied in the Forand Bill."

He therefore urged that leaders of Blue Cross-Blue Shield Plans adhere to community rather than experience rating.

He urged that Blue Shield Plans adopt realistic income limits:

> "In our opinion, recognition should be given to the fact that, as subscriber incomes and the costs of medical service rise—with the latter tending to outstrip the former—periodic reappraisals may be required to provide adequate and attractive service to a significant number of people in the community. We believe the distinguishing feature between Blue Shield and commercial insurance is the service principle, which only Blue Shield provides. Without the service principle there is little in Blue Shield that is superior to commercial insurance, which, within its inherent limitation, has shown a high degree of flexibility and responsiveness to client interest and needs."

He suggested periodic "reappraisal of the question of income limits." "I can think of no stronger bulwark that the profession could erect against the undue intrusion of Government or powerful private economic groups in the field of medical practice than Blue Shield programs that make service-type coverages available to a majority of the public at a realistic and reasonable cost."

In conclusion Mr. Denise said: "I have faith in voluntary programs and the ability of the professions and community organizations involved to fulfill the needs of our people. I am encouraged in this faith by the increasingly abundant evidence that our doctors, our hospitals, and our voluntary community organizations are conscious of the problems, aware of their responsibilities, and actively seeking better ways and means of meeting them. Given this awareness and attitude, I feel confident, they will be met within the framework of our free institutions."

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The Detail Man

It isn't often that the "detail man" is afforded an opportunity to speak for himself before a group of Washington physicians. In fact, your Observer cannot recall such an occasion in recent years. However, Mr. Robert J. Mitchell, Area Representative of Pfizer Laboratories, did the next best thing when he participated in the Symposium for Doctors' Office Staffs. The Symposium was sponsored by the Committee on Public Information and was held in the Society's auditorium on January 15, 1960.

Physicians will find Mr. Mitchell's views interesting, although they may disagree with some of them. Mr. Mitchell began his talk with a description of a busy physician's office at the beginning of a work day. Everything, he said, appeared well in hand until "a ray of sunshine" entered—"a friendly, happy, smiling sort of fellow, known as the Detail Man!"

> "Some of you," Mr. Mitchell told his feminine audience, "would probably greet him simply—by saying something like 'Get out!' Others would possibly utter an exasperated, 'Oh, No!' And still many of you would politely inform him that the doctor is a little busy this morning and probably could not see him. In many, many cases, however, you would probably not get a chance to say anything at all, since the detail man, upon perceiving the room crowded with patients, would never fully enter the room but leave quietly instead. In all honesty, however, let us admit right here that there are a few detail men who would make themselves quite obnoxious by

insisting on seeing the doctor sometime that morning. I hope, though, that you will agree with me when I say that this type is in the minority."

As to the number of detail men, he quoted *The Journal of the American Medical Association* to the effect that there is 1 detail man for every 16 practicing physicians in the United States. "That," Mr. Mitchell said, "is a total of some 10,000 men."

Are detail men really necessary? In answer to this question, Mr. Mitchell pointed to the mail which "literally floods a doctor's office daily." As a result, he said, "they simply do not have the time to look at every piece of advertising matter delivered to them." From what your Observer knows about physicians, this is a gross understatement.

"Oh, No!"

Mr. Mitchell quoted Dr. Erwin Steinman, of Washington, who addressed a group of Ciba representatives, as having said:

"'I presume some doctors must read at least some of the tremendous quantities of advertisements and literature that flood their desks every morning. This must be so since I am told that many pharmaceutical firms sell a great deal of new drugs even in areas where there are few or no sales representatives. Direct mail assuredly reaches many outlying physicians whom detail men don't reach, and I imagine it is of value in keeping them abreast of current matters. I have made it a point to canvas a few of my colleagues in Washington. Generally speaking, they are as annoyed by the volume of advertising that deluges them every morning as I am. . . . It is overwhelming. My only defense is an oversized waste basket.'"

In Mr. Mitchell's opinion, 90 to 95 per cent of physicians do not look at more than a fraction of their bulk mail. He questioned the extent to which they read pharmaceutical advertising in medical journals.* If these media are not satisfactory, he said "personal contact with the detail man" can fill the breach effectively.

"Basically," he stated, "the objective of the detail man is to inform the doctor as briefly, concisely, and completely as possible of the products which his company has available to the doctor for his particular use. Through this personal contact, the detail man knows what products would most interest the individual doctor." He is most anxious not "to waste the doctor's most valuable time. . . . Time is the most important consideration both to the doctor and the detail man."

"Surveys have shown that the detail man spends an average of 8 minutes actually 'detailing the doctor.' He spends on the average of 29 minutes waiting to see the doctor. Looking at this from the standpoint of dollars and cents, the detail man brings to his company, through sales, an average of $125,000 per year from his territory. There are 200 working days per year. That means his time is worth $625 per working day, and $90 per hour, or, based on the 8 minutes of actual selling time per doctor, it means $11 per minute. So you can readily see that the detail man has personal reasons why he does not wish to waste a doctor's time.

"Therefore, when a detail man approaches you in the future, please keep this thought in mind; he is there to perform a very important service in the shortest possible time. He has worked hard, most of the time for many hours, to make his detail as interesting and informative for the doctor as possible."

★

Bogus Pollsters Periodically the Society's telephone exchange, MEDICAL BUREAU, receives a large number of complaints from women who have been queried over the telephone by a man representing himself as a poll-taker. He usually identifies himself as being associated with some foundation or highly respected institution of learning. Having established his "connections" he states the purpose of his call. He is making a survey of marital relations and would like to ask some personal questions.

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* In a reader survey made by the Editorial Board of the MEDICAL ANNALS in 1957, 198 members participated; of this number, 157 said they read advertisements regularly or occasionally (see MEDICAL ANNALS, December, 1957, pp. 655–6).

Their intimate nature arouses the suspicions of most women, but, surprisingly, intelligent persons are not infrequently taken in by the ingratiating caller. They discover their naïvete and are both embarrassed and angry, venting their wrath to whoever will listen. In no instance has the male caller ever followed up on his telephone conversations. These have given him the "thrill" he is seeking.

The above pattern has varied little over the years. This type of poll-taking had its origin in the District following publicity given the Kinsey Report. For a time it seemed Dr. Kinsey's "pollsters" were all over the place. However, the most active were forced out of circulation by the Metropolitan Police Department. When it became generally known that Kinsey telephone pollsters were fakes, a switch was made to other institutions and organizations. Things remained fairly quiet for a period, although it could hardly be said that sex deviates are ever inactive.

Now one would think that publicity would be the best weapon to wipe out this nuisance, but experience has shown that it serves only to stimulate other abnormal individuals to activity. Difficulty in apprehending the bogus pollster is due to the fact that the unsuspecting woman who receives a call from him is not aware in the beginning what his conversation is leading up to.

Obviously, she does not have the opportunity to have the call traced. The result is that in many instances little can be done to ferret out the culprits.

On one occasion MEDICAL BUREAU received a number of calls for doctors over their "private wires" from a male caller who said he wished to have his sister examined, and then proceeded to inquire whether it would be necessary for her to have her clothing removed and about other intimate details. This was reported to the Police Department, which dispatched an officer to the BUREAU. He listened in on calls from this individual and managed to have them traced. As a result a hospital employe was picked up, his voice being identified by BUREAU operators. He was subsequently hospitalized in a mental institution.

As previously indicated, ever since the Kinsey Report, sex deviates have been more or less active in "polling" women. They soon discovered that women who advertised in newspapers for positions frequently gave their telephone numbers. The result was that several of them, posing as physicians, called the women who were seeking employment. They indicated their interest in employing them and proceeded to ask them very personal and intimate questions. If these women became suspicious, they called the BUREAU, where they learned that the caller was not a doctor. Newspapers could eliminate these calls if they insisted that women who place Want Ads use box numbers.

Upon inquiry, your Observer recently learned from the Police Department that most active bogus pollsters are known to them. However, prosecution has been difficult if not futile because, first of all, the guilty individual could only be charged with a misdemeanor, and courts have been reluctant to find the accused guilty, because it is difficult to ascertain if the calls complained of originated in the District. Further, the individual called could have easily avoided the embarrassment by merely hanging up the receiver.

From a lay point of view, this is hardly a satisfactory answer. Under the circumstances, however, it is hoped that women's good sense will prevail and that they will consistently discourage the "seeker of thrills" who may call them. They should remember that authentic polls are never taken over the telephone.

Publishing Hazards

There are two serious hazards in the publishing business, according to Mr. Carl L. Shipley, a Washington attorney. These, he writes in the PUB, house organ of the National Publishing Company, are "the risk that a conscientious publisher may be sued for libel as a result of statements contained in a newspaper, trade journal, book, or other publication he publishes; and the risk of copyright infringement."

> "Many publishers," he observes, "have been lulled into a false sense of security by the supposition that they are not responsible for statements written by other persons or for copyright infringement unless there is a notice of copyright on the material they copy. Unfortunately, many publishers have learned to their sorrow and in some cases to their financial ruin that they are responsible for all that appears in their publications, even though they may have had no part in its preparation or may have had no personal knowledge that it was being published. Libel or defamation as it is sometimes called is a personal civil right. Copyright is a property right."

Although he points out that the legal principles involving libel and copyright are unrelated, they are "equally perilous from the standpoint of the publisher."

> "*Libel.* One Court has ruled 'any and all publications in writing or in print imputing to another crime, or disgraceful, or fraudulent, or dishonest conduct, or which tend to render a party ridiculous or contemptible in the relations of private life, are libelous and an action for damages is maintainable against the writer and *publisher* unless the publication is embraced within that class of communications which are termed privileged communications, or unless the libeler can prove the truth of the libel.'
>
> ". . . The whole law of libel is based on the importance of a person's reputation. It is simply a legal conception of the principle expressed by Shakespeare in Othello when he wrote: 'Who steals my purse steals trash, but he who filches from me my good name robs me of that which does not enrich himself and makes me poor indeed.' "

This reminds your Observer of an incident which occurred not too long ago. A book review was submitted to the Medical Annals in which the reviewer not only criticized the book but ridiculed its author, who, by the way, was a physician. The review was rejected without explanation. The reviewer should have been told that his contribution was not only in poor taste but might result in a libel suit.

From time to time, officers of the Society are urged to make intemperate public statements, especially with respect to individuals who are unduly critical of the medical profession. Some of these statements might well have been libelous. Fortunately, good sense prevailed, it being recognized that ordinarily little can be gained by indulging in personalities.

COURT SUMMONS

An Ounce of Prevention

> There are, of course, "exceptions and defenses to a charge of libel. Generally a statement must be both false and injurious to be libelous. It must identify some named or ascertainable living person, and must have been published. If a statement is true it cannot be libelous. In addition, a publisher may show that an allegedly libelous statement is nothing more than a fair and accurate report of a judicial, legislative, or administrative proceeding. Such reports are privileged and even though they contain false and injurious statements the publisher is not responsible for any libelous material the report may contain. . . . 'This freedom from liability is founded on the principle that it is for the public interest that in certain cases persons should speak or write the whole truth frankly uninfluenced by consideration of consequences. This class of privilege is comparatively a new one and has been strictly confined by the courts to legislative proceedings, judicial proceedings in the established courts, civil or military; and official reports and communications by or to the executive head of a department of the government.' "

PANELISTS AT FIRST SESSION OF NINTH MIDWINTER SEMINAR

The first session of the Ninth Midwinter Seminar, sponsored by the Medical Society of the District of Columbia, was held in the Medical Society's auditorium, February 10. The panelists shown above discussed "Recent Advances in the Uses of Antibiotics and Steroids." Left to right, they are: Dr. Sheldon E. Greisman, Associate Professor of Medicine and Physiology, University of Maryland; Dr. Monroe J. Romansky, Professor of Medicine, George Washington University; Dr. Theodore E. Woodward, Chairman, Department of Medicine, University of Maryland, and Dr. Laurence H. Kyle, Chairman, Department of Medicine, Georgetown University, who were co-moderators; Dr. Victor R. Alfaro, President of the D. C. Medical Society, who opened the meeting; and Dr. Joseph I. Bunim, Clinical Director, National Institute of Arthritis and Metabolic Diseases, NIH.

Mr. Shipley again warns that "every publisher of printed material or photographs should constantly bear in mind that he may be called upon to pay damages for libel even though he is innocent of any knowledge that false and injurious statements appeared in his publication. . . .Honest mistake, ignorance of the law, or reasonable precaution are no defense to a charge of libel. . . ."

Copyright. Mr. Shipley explains that it is "a basic principle of the common law that a man has a property right in the fruit of his own mental labors." This right, however, is "lost on publication." To protect himself he should take advantage of the Copyright Act, which gives the owner "an exclusive property right in his production after publication."

"Unless a statutory copyright is obtained on publication, the work is in the public domain and can be copied and used freely by anyone." It is up to the publisher to determine whether the material he contemplates using belongs to someone else. A notice of copyright should appear in a prominent place in a publication. Where there is no copyright notice, Mr. Shipley states, "it is safe to assume there is no statutory copyright."

However, publishers should be "very cautious in the use of art, maps, letters, advertising, photographs, prints, labels, and similar created works to avoid finding themselves the defendant in a law suit for copyright infringement."

All of the above is perhaps of more interest to publishers than to physicians, although not necessarily so. There have been instances where physicians have become involved in serious legal difficulties because of statements made for publication or of failure to observe copyright laws.

Where medical journals are concerned, editors are usually well aware of their responsibilities with respect to copyright. Permission is always obtained to quote extensively from non-medical publications. This rule is not always observed where other medical journals are concerned. It is taken for granted that quotes can be published without permission because "it is all in the family." This is perhaps unwise. The safest course would be to obtain written permission regardless of the type of publication where it is ascertained that the contents are copyrighted.

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Handicapped Candidates?

As nearly everyone knows, the President of the United States is subjected to stresses which few ordinary individuals are called upon to cope with. President Eisenhower has demonstrated that physically he possesses the required ruggedness. Despite his serious illnesses and his approaching three-score-and-ten, he carries on with surprising vigor. The fact is the President appears in as good health as at any time during his two terms in office.

To all appearances the President has recovered as completely as a man can from a heart attack, an ileitis operation, and a mild cerebral accident. One explanation for his continued good health, aside from a rugged constitution, is the tremendous lift he must get from his position of world leadership, especially the acclaim of vast throngs of people he has encountered on recent journeys abroad. No man could remain unaffected by such tribute. Undoubtedly this has seen him through grueling physical demands and has generally contributed to his apparent good health.

Concern for the President's health is seldom heard these days; however, his medical history has left its mark. From time to time, stories appear in the press emphasizing the importance of physical fitness of those who aspire to the highest office in the land. This has raised the question—how does the 1960 crop of leading candidates for the presidency rate physically?

Mr. Jack Bell, of the Associated Press, writes that six of the leading contenders were "not always as frisky as they appear today." His report on their health records makes interesting reading.

Vice President Richard M. Nixon, 47, maintains "he has no worries" about his health, but, says Mr. Bell, he has high blood pressure and periodically a nervous stomach and a "touch of hay fever now and then." To cope with his high blood pressure, doctors watch his diet and cholesterol intake.

Senator John F. Kennedy, of Massachusetts, 42, "gives every evidence of having recovered from a spinal injury for which he underwent surgery in October, 1954." The Senator was injured in World War II when his torpedo boat was hit by a Japanese destroyer. He had several operations and was hospitalized the last time "for removal of a metal plate that appeared to be slowing his recovery." Doctors were concerned about his future health but reportedly he is now entirely free of spinal trouble.

Senator Hubert Humphrey, of Minnesota, 48, according to Mr. Bell, "has not had a serious illness since pneumonia almost took his life when he was 7 years old." He has, however, had two operations for double hernia and an appendectomy.

PANELISTS AT SECOND SESSION OF NINTH MIDWINTER SEMINAR

The second session of the Medical Society's NINTH MIDWINTER SEMINAR was held February 17. The topic for discussion was "Current Uses of Tranquilizers, Stimulants, and Related Drugs in Clinical Medicine." The participants (left to right) are: DR. JOHN D. SCHULTZ, Chief, Neuropsychiatric Service, D. C. General Hospital; DR. REGINALD S. LOURIE, Director, Department of Psychiatry, Children's Hospital; DR. JOEL ELKES, Chief, Clinical Neuropharmacology Research Center, National Institute of Mental Health, who was moderator; DR. MORRIS KLEINERMAN, Assistant Clinical Professor of Psychiatry, George Washington University; DR. JONATHAN O. COLE, Chief, Psychopharmacology Service, National Institute of Mental Health, NIH; and at the microphone, DR. OTIS R. FARLEY, Director of Medical and Surgical Branch, St. Elizabeths Hospital.

Senator Lyndon B. Johnson, of Texas, 51, was stricken with a heart attack described as "moderately severe" in July, 1955. He was also operated on for removal of kidney stones. Nevertheless, the Senator continues to be a "dynamo" and his heart attack is not considered to be serious since President Eisenhower's recovery.

Senator Stuart Symington, of Missouri, 58, had a sympathectomy from which it appears he has made complete recovery.

Adlai E. Stevenson, 60, has had kidney stones for which he has undergone two operations.

There are apparently no secrets where the health of public officials is concerned. The press has shown an insatiable appetite for such information even though it be of an intimate nature. In the pursuit of facts they have learned what every physician has long known, that is, that few men past middle age can boast of a perfect health record.

Unless it is obvious that recurrence of an incapacitating illness is probable, contenders for the presidency should, therefore, not be disqualified for health reasons. On the basis of the information provided by Mr. Bell, it appears the six top contenders are sound enough physically to carry the burden of the "prize" they seek.

T. W.

PRESENT STATUS OF LIVE POLIOVIRUS VACCINE

Surgeon General Leroy E. Burney, of the Public Health Service, released* for publication a report presented to him by the Committee on Live Poliovirus Vaccine, headed by Dr. Roderick Murray, Chief of the Service's Division of Biologic Standards. This Committee was given responsibility for evaluating all available information, for determining what additional information is needed, and, where necessary, for initiating studies to supply the answers to questions that must be resolved before licensing can be recommended.

"If energetic efforts are continued to find answers to the remaining technical questions concerning safety, effectiveness and manufacturing procedures, 1 or more of the 3 vaccines now being proposed may be under production within 1 to 2 years," Dr. Burney said. "Meanwhile in the Salk vaccine there already is at hand a potent weapon whose value and effectiveness have been proved. I continue to urge all persons under 40 to complete their series of Salk injections so that no one will remain unprotected at the time of the next polio season."

The following is the status of the live poliovirus vaccine as reviewed by the Committee:

1. Three sets of attenuated polio virus strains have been proposed for use as oral vaccines. The Sabin strains† have all had extensive field trials in Eastern Europe, Mexico, and Singapore; the Lederle strains‡ have been widely used in Latin America; and the Koprowski Type I strain§ has been used in a large trial in the Belgian Congo. However, no significant amount of field information is available concerning Koprowski's Type II strain, and only limited information is available in relation to his Type III component.

2. There is considerable difference in the neurovirulence or damaging effect on nerve cells for monkeys of the 3 sets of strains as determined by intrathalamic (within the brain) and intraspinal inoculation. On this basis, the Sabin group has an advantage over the others, but none of these strains is completely nonvirulent when inoculated into monkeys by the intraspinal route.

3. No evidence has been reported to indicate that any of these vaccines produced any harm to the individuals to whom they were administered. The thoroughness with which the observations were made has varied in different studies.

4. In some studies the ability of these strains to multiply and thus produce antibodies is less than could be expected on theoretical grounds. Apparently a number of factors operate in the field which may prevent alimentary infection and the subsequent development of immunity.

5. A number of workers have reported that virus

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* August 28, 1959.

† Developed by Dr. Albert Sabin of the University of Cincinnat

‡ Developed by Dr. Herald Cox, Lederle Laboratories, Pearl River, N. Y.

§ Developed by Dr. Hilar Koprowski, Wistar Institutes, Philadelphia.

excreted by vaccinated individuals had shown increased neurovirulence for monkeys. There is considerable disagreement among investigators as to the significance of these reversions in virulence.

6. Field experience with any strain to date cannot be interpreted as affording reasonable proof that the community of nonvaccinated persons will be free of danger from possible reversion of virulence in excreted virus under a great variety of readily anticipated circumstances. This is one of the most important unresolved problems.

7. There is evidence which indicates that under some circumstances the simultaneous administration of all 3 types of virus may be effective.

Major problems which remain to be solved before definitive decisions can be made regarding licensing are reported by the Committee:

1. The significance of increased neurovirulence for monkeys of virus excreted by vaccinated individuals, as reported by a number of workers.

2. The demonstration of adequate measures of effectiveness of live poliovirus vaccines in field trials which, to be definitive, must involve large population groups. The capacity of the virus to spread among contacts means that in such a controlled field trial, some nonvaccinated controls will become infected and thus presumably become immune—a complicating factor in such a study.

3. The development of standards to determine the possible presence or absence of stray agents in the vaccine. Over 40 simian agents, including B-virus, have been encountered in the routine testing of killed poliovirus vaccine. These are derived from the monkey tissues used. Little is known of their pathogenicity for man, except B-virus, and even here the minimum infecting dose is not known.

4. The establishment of carefully designed and evaluated studies to demonstrate the production of specific antibodies in 90 per cent or more of inoculated susceptibles in order to assure the potency of such vaccines.

Members of the Committee, in addition to Dr. Murray, are Dr. David Bodian, Professor and Director, Department of Anatomy, Johns Hopkins University; Dr. William McD. Hammon, Head, Department of Epidemiology and Microbiology, Graduate School of Public Health, University of Pittsburgh; Dr. Alexander Langmuir, Chief, Epidemiology Branch, the Public Health Service's Communicable Disease Center, Atlanta, Georgia; Dr. Joseph Melnick, Professor of Virology and Epidemiology, Chairman of Department of Epidemiology, College of Medicine, Baylor University; and Dr. John R. Paul, Professor of Preventive Medicine, Section of Epidemiology and Preventive Medicine, School of Medicine, Yale University.

DOCTORS' DAY

Once again on Doctors' Day, March 30, the members of the Woman's Auxiliary to the Southern Medical Association are making plans to honor the hard-working members of the medical profession. The red carnation chosen as the symbol of Doctors' Day will be seen in hospital displays, and many a doctor will be wearing one in his lapel. The highlight of the day will be a reception at the District of Columbia Medical Society building, where those who have been members of the Southern Medical Association for 30 years or more will be guests of honor.

It was a Georgia doctor's wife who first suggested March 30 as being appropriate for Doctors' Day, for on this date, 118 years ago, ether anesthesia, perhaps the doctors' greatest gift to mankind, was first used.

Each of the last 2 years the George D. Feldner Trophy has been won by the District of Columbia Auxiliaries, once by the Woman's Auxiliary to the D. C. Medical Society and once by the D. C. Auxiliary to the Southern Medical Association. This trophy, a bronze loving cup, is annually awarded for the best overall observance of Doctors' Day in Nation-wide competition. This is an achievement in which we take great pride—but then, so do we in our doctors!

MRS. JONATHAN MARSHALL WILLIAMS
Chairman, Doctors' Day Committee,
District of Columbia Auxiliary to
the Southern Medical Association

On the Lighter Side

This is such good news for 67 doctor-dentist bowlers that it cannot wait until the usual end-of-the-season report. It just has to be told now so that all of the above 67 can make plans for the bowling season of 1960–61.

The current season's bowling schedule at Bethesda Forty Bowling Alleys for the D. C. Medical-Dental Bowling League is over half completed. It has been a successful season so far, under the guiding hand of Dr. Andy Betz, President. All the bowlers are looking forward to the highlight of the season, namely, the Annual Banquet in May with its delicious food and drink plus the distribution of individual and team prizes and trophies. But the big news is that the captains of the League assembled, after much soul-searching and self-analysis, voted to return the League to a more centrally located alley. Therefore, by majority vote the D. C Medical-Dental Bowling League will return to the Lafayette Alleys located on Eye Street, N.W. between 16th and 15th streets—practically in the Medical Center—for the new season of 1960–61. This was done so that the doctors and dentists from Southwest and Southeast Washington, Arlington County, Virginia, and Prince Georges County, Maryland, will not have to travel so far each Friday night in order to bowl. The doctors and dentists in Northwest Washington and nearby Montgomery County will be close enough also.

During the course of the meeting a new President was elected, Dr. Irvin Douglas, for 1960–61, with Dr. Clyde Reeves and Mr. James Carter as holdover Vice President and Secretary-Treasurer, respectively.

The captains of the League hope that this change of bowling alleys to the medical center of Washington will attract back to League competition such experienced and good-fellow bowlers who were regular members in 1953–54 when the League had a very successful season at the Lafayette Bowling Alleys. We would like to see such Prince Georges stalwarts as Drs. Fred Musser, Harry Ferris, George Hageage, John Perkins, William Brainin, John D'Angelo, and Elbert W. Dodd form a new team. We would welcome the strong and accurate bowling arms of Drs. John W. Nesbitt, Allen S. Lloyd, Robert R. Montgomery, Robert W. Sjogren, Otto T. Englehart, John W. Duchez, Thomas G. Edison, Horatio, Hamilton and Parker Dorman, and Richard H. Fischer. It would improve the competition if old Garfield #1 Team was reformed with the indomitable Drs. Ashby W. Smith, Brooks B. Brown and W. Luther Hall as the nucleus. We would be happy to see Georgetown reunited with Drs. Roy G. Klepser, Lawrence A. Rapee, Dee R. Parkinson, and David Johnsen as the guiding lights. It would bring back fond memories to have another George Washington Team of Drs. John W. Price, Blaine Eig, Bernard Fitzgerald, Harry Horstman, James A. Roberts, and William R. Moses back in the fold.

Who can forget those 1953–54 Good Hopers? Such excellent pin-spillers as Drs. Alfred Wilson, Ernest Cornelson, J. J. Connors, Howard E. Newman, Wendell Parker, D. W. Ingham, and Herbert J. Friedel. It would be like greeting old friends to see Drs. John Garrett Reilly, William H. Clements, Richard J. McNulty, J. Phelps Hand, Sollie Katzman, G. Roland Gable, Robert B. Irey, Russel S. Page, Jr., John A. Kennedy, Charles F. Hill, Sam Loube, Clayton Hixson, Charles Millwater, Robert Simpson, Howard Donald, Mark Burton, James Frawley, and Bruno Floria back in the League. Two strong bowling teams could be formed from such accomplished bowlers as Drs. Frank E. Gibson, Albert K. Leon, John Haberlin, Ralph Barnhard, Sam Zola, Charles Horner, Jim Choates, Forrest V. Schumacher, Clifton R. Gruver, and James A. O'Keefe.

Believe it or not, all these good friends and good bowlers were members of the D. C. Medical-Dental Bowling League in 1953 and 1954 when we last rolled at the Lafayette Alleys. What a pleasure it would be to have these friendly faces back again in 1960–61!

Any doctor or dentist who would like to join up for the bowling season of 1960–61, either in a team or as individual bowler, please contact the secretary, Jim Carter, at Oliver 6-8043 after 6 p.m.

* * *

Chuckle note: A bachelor is a fellow who is crazy to get married—and knows it. Marriage brings about punctuality, thrift, and several other virtues which a man would not need if he had stayed single. . . . However, every man needs a wife because many things go wrong that one can't blame on the Government.

J. Earl Kadan, M.D.

HEALTH PROBLEMS OF THE AGED*

JACK KLEH, M.D.

Chairman, Committee on Aging, The Medical Society of the District of Columbia

Characteristically, physicians have approached the medical management of the aged patient with a defeatist attitude. There has been too much of an inclination to justify disease on the basis of old age and thus to be less enthusiastic in management. Even more deplorable is the decreasing tendency to practice preventive medicine with the aging individual. This has been due largely to the unfavorable prognosis that almost any illness carried when it occurred in an individual in the late decades. Effective management of infectious diseases, coupled with better anesthesia and surgical technics, has not only prolonged life expectancy but has justified approaching illness in the aged with almost as much enthusiasm as in the younger patient.

PHYSIOLOGY OF AGING

A comparison of the "general physiologic state" of the "normal" older subject with his younger counterpart reveals an amazingly small diminution in function. There is considerable difference of opinion, as a matter of fact, as to what is "normal" for any chronologic age period. While certain changes may be considered "normal" in an individual of a particular age, with progression they may produce a definite disease entity. The majority of these changes have their onset much earlier in life, usually in the 20's and 30's, but become significant only in later years.

The pathophysiology of aging is a complicated process and far from understood. It may be that, once this goal is achieved, we will have reached "the fountain of youth." There are certain aspects, however, that bear discussion.

CONCEPTS OF STRESS

The old adage, "If you want to live to a ripe old age, pick your parents," seems to contain a certain amount of truth, for some inherit better tissues and show less degeneration with time and stress than others. The inheritance plus the amount of stress determine how well our bodies stand time. Such stress may be applied from the outside by way of injuries, toxic substances in the air we breathe or the food we eat, and even noxious stimuli that produce emotional disturbances. While adequate function of an organ is contingent upon usage, prolonged or excessive usage forms a type of stress. Flexing of the skin of the face, for example, in the young leaves no crease. Continued flexion, however, leads eventually to fixed wrinkles. External stresses or pathologic changes from other than degenerative processes may magnify the changes produced by such stress manifold. While in the normotensive patient degenerative changes may become manifest with age and these may be accentuated segmentally in those areas subjected to the most pressure, there is increasing evidence that arteriosclerosis is considerably accelerated by the increased pressure seen in the hypertensive patient. Overweight individuals are much more prone to develop degenerative changes in weight-bearing joints than their thinner counterpart in the same age group.

Degenerative changes can be demonstrated in almost every organ or organ system, but the tremendous reserve is usually more than enough to compensate for what might be termed "physiologic degeneration." Such changes are readily measured in the lungs and kidneys, and while there is some decrease in function from the basic normal, it is usually more than enough to maintain functional adequacy. On the other hand, progression or exaggeration of these processes until adequacy is compromised produces definitive chronic disease, for example, emphysema in the lung and nephrosclerosis in the kidney.

CHRONIC DISEASE

These and other chronic degenerative diseases, while having their onset early in life, are most commonly associated with the aged. It has been pointed out, for example, that the incidence of chronic disease in 70-year-old subjects is 10 times that of the 30-year-old group. Further, it has been estimated that by 1965 in 75 million people of the aged and immediately pre-aged group, i.e., over 45 years of age, there will be 20 million with cardiovascular disease, an equal number with some form of arthritis, and 15 million with significant emotional disturbances.

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* Read before a meeting of the American Hospital Association in New York City, August 24, 1959.

Infectious diseases are usually not a significant problem to the older individual, except perhaps terminally. There are 2 exceptions to this, however, tuberculosis and syphilis. A recent report in the *British Medical Journal* indicated that pulmonary tuberculosis is increasingly becoming a disease of older persons, and particularly of men over 65 years of age. Many of the manifestations of degenerative changes in general, such as lassitude, anorexia, and weight loss, may be due to tuberculosis rather than to "old age." In certain areas and in certain racial groups late syphilis manifests itself as aortitis or valvular heart disease, as tabes or as paresis, with a significant frequency.

The increased incidence of cancer today can be largely attributed to increased longevity and a greater number of elderly people. Programs designed to detect cancer yield greatest dividends after the fifth decade. Thus, the detection and treatment of malignancies form an important medical problem in the aged.

One of the most pathetic, and unfortunately too frequent, manifestations of old age is what we commonly term "senility." This is characterized by a decrease in mental acuity, forgetfulness, abnormal behavior pattern, and even manifestations of a frank psychosis, which is usually attributed to damage to blood vessels that supply the brain. Studies on blood flow to the brain and cerebral metabolism, however, have failed to show any consistent correlation between mental acuity and decreased blood supply. As a matter of fact, one of the lowest blood flows we have recorded was in an exceptionally alert elderly man. While there seems to be no question but that vascular damage to the brain resulting from a "stroke" may produce mental impairment and that even repeated "little strokes" with transient weakness, confusion, syncope, and perhaps long-range personality changes are due to vascular inadequacy, there seems to be more and more evidence accumulating that many of the aged become senile because of lack of interest, activities, and mental stimulation rather than as a result of organic vascular disease. Dr. Jack Weinberg has pointed out that when a child plays with imaginary people and things, we consider it normal and say that he has a "vivid imagination." On the other hand, when we see an elderly individual talking to himself, changing his expression without obvious external reason, or becoming unusually absent-minded, we feel he is peculiar. Is there a difference?

Fringe Problems

Three other areas, not strictly in the chronic disease group or considered as medical problems of the aged, bear special mention.

Obesity is seldom found in healthy individuals over 60. As a matter of fact, few obese people reach this age, as the life insurance statistics well testify. Yet, obesity contributes significantly to many of the problems of the aged. It aggravates and accelerates degenerative joint disease. The factors producing obesity have considerable to do with the whole process of arteriosclerosis. Diabetes is much more prone to occur in the overweight individual, as is gallbladder disease. It even handicaps the surgeon and the anesthetist if surgical intervention is required.

Accidents are not usually cited as a special health problem in the aged, yet Dr. A. L. Chapman, Assistant Surgeon General in charge of Special Health Services, USPHS, reports that $\frac{1}{3}$ of the pedestrian deaths are in persons over 65, and that 85 per cent of an annual 13,000 accidental deaths in the home resulting from falls occur in persons over 65. There is a tendency to play down the importance of accidents in terms of both morbidity and mortality, but it certainly represents a problem to the community and more so for the aged individual.

A third area in this rather ill-defined category concerns habits. Once again it is not the habit per se but the effect of poor habits in earlier years that create a problem with the older patient. Moderate use of alcohol and tobacco has not only been condoned in older patients but frequently encouraged. While on physiologic grounds it might be desirable to eliminate both items as a steady diet, it may well be true that the psychological benefit derived from moderate smoking and a cocktail before dinner may more than offset any physiologic damage. Overindulgence in medication, particularly proprietary ones, in an attempt to substitute artificial stimuli for physiologic ones should be discouraged. For example, no laxative is entirely satisfactory, because with prolonged usage it usurps the role of the large bowel. Continued usage, over many years, frequently seen in the aging individual, results in such complete dependency of the bowel that on sigmoidoscopy it appears like a "wet paper sack." The loss of normal bowel function is frequently associated with decreasing physical activity. Regular exercise is one habit that should be developed early and continued through the aging period. There are other good habits that should be developed, such as an avocation, participation in social and recreational activities, etc., but it is exceedingly difficult to develop these activities late in life, in opposition to earlier and well-established patterns.

Obesity, accidents, and the influence of habits are of signal importance as health problems of the aged because they represent areas in which positive action can be taken and invariably with benefit.

Another area which is not too well defined but which has great significance for the aging concerns the substitution of prosthetic devices for sensory or motor losses. The use of glasses to offset decreases in visual acuity is almost invariably accomplished. This is because accommodation changes occur earlier than changes in other sense organs. It is not uncommon to misconstrue the actions of many elderly individuals because of hearing loss, without correctly placing the blame. Attention to this change and substitution of a mechanical device to replace the hearing loss when it first begins may offset many difficulties later on. The use of artificial limbs in the aged has often discouraged by the belief that the patient will not get "his money's worth" out of the device, a defeatist attitude which has long been in existence. Certainly not only artificial limbs, but corrective surgery, in many instances, is now worth while for the aging patient; and I might add that this is true economically as well as physically.

Facilities and Services

Facilities and services needed are largely available. There is presently a marked increase in interest in the aging problem by the medical profession, largely due to the activities of the American Medical Association. A more optimistic and enthusiastic attitude in the light of physiologic status rather than chronologic age would go a long way to offset problems concerning the health aspect of aging. There is perhaps no area in which a coördinated program between medical services, paramedical services, and even nonmedical ones is more essential to maintain optimum health. Again, we can learn from what others have already accomplished. The pediatrician has of necessity taken an active interest in the diet of the baby, the clothing and sleeping accommodations, even the paint and wood that toys are made of, not to mention the parents' problems. The geriatrician, or the physician doing adult medicine, must interest himself in similar categories.

Institutional care should be of a progressive type. There should be facilitated flow between the home, the acute disease hospital, the chronic disease institution, and the nursing or personal care facility. Aging individuals kept in a spot too long frequently "take root" and rehabilitation becomes far more than a medical problem. The progressive approach to medical care not only serves the individual but the community.

There is a great need for a central information service to assist the older patients in all areas. Such an information center has worked quite well in many communities, for if a service or facility is not known to a patient it can be of little use.

Finally, I would like to give to you my specific, constructive (I hope) recommendations for a Preventive Geriatric Program. Once again it must be stressed that most of the problems of the aged have their inception early in life, and the earlier, therefore, any program is initiated, the more fruit it will bear.

1. *Periodic health appraisal.* As you know, the American Medical Association established a Committee on Aging several years ago, and I assure you this has been a very dynamic, interested and most enthusiastic group. After considerable self-education and investigation, it concluded that the most important single contribution of the medical profession at this time would be to encourage every adult individual to have a periodic health appraisal and to define what this health appraisal should consist of. The adult American will see that the whole family visits the dentist, he will take his children to the pediatrician, and even the dog to the veterinarian, but it is unusual to find him or her in the physician's office for an examination unless there is some motivating complaint. Women, fortunately, because of their child-bearing trait, do better than men. Periodic health appraisal is one thing that can be

done in every community, today, whereas cures for crippling and killing chronic diseases, despite current advances and ever-increasing efforts, must lie somewhere in the future. It is the responsibility of every private physician to educate and encourage his patients to have a complete periodic examination, and state and local health programs should be oriented in this direction.

2. *Diet.* Problems of obesity have already been alluded to. Some years ago, malnutrition and vitamin deficiencies due to dietary inadequacies were a prominent problem. Progress has been so great in this area that it is seldom that one sees an individual in this country suffering from malnutrition or vitamin deficiency unless it is due to some primary disease state, such as malignancy, alcoholism, etc. The pendulum has swung in the opposite direction, and our problem lies now in overindulgence, both in calories consumed and, to some extent, in sources of calories. While it is possible to list certain basic nutritional requirements, when dealing with the aging individual there is frequently a great gulf between what he or she should eat and actually does eat. There may be many reasons for this, perhaps the most common being poor habits developed during a lifetime. The solution lies only in individualization and education either of the patient himself or those who prepare and serve the food. Nutritional supplements, of course, have value, but the cost precludes their use in many situations, and it is entirely possible to provide a satisfactory diet at quite reasonable cost.

3. *Physical activity and mental stimulation.* There is increasing evidence that regular physical exercise is not only desirable but necessary for good health. "Regular" bears emphasis, for the week-end athlete is certainly looking for trouble. The concept that unused organs and tissues degenerate is a well-accepted biologic axiom which has already been touched upon above in terms of large bowel function. There are many other examples of this. Muscles or a limb immobilized by a disease like poliomyelitis or mechanically by a cast invariably atrophy; immobilization of the entire body in the bedridden patient produces demonstrable changes in not only the skeletal structures and musculature, but in the metabolism of every tissue in the body. For optimal function, every organ requires use. Exercise uses up fat that may play an important role in arteriosclerosis, increases the size and tone of the skeletal muscles, stimulates function of the heart and lungs in order that they may maintain reserve capacity; and regular exercise may well be the best "tranquilizer" and the best defense against emotional disorders.

In the past certain individuals have been looked upon as "crackpots" because of their excessive and well-advertised physical activities. Common sense alone tells us that such vigorous sports cannot be undertaken at advanced age, but there is some form of exercise that is feasible for all but the most disabled. Walking, for example, is wonderful exercise and has the advantage of not requiring special equipment, of allowing for easily-graded increments. It is not dependent upon participation of others and within reason may be carried on in any type of weather. Rest, of course, is important as well. Either too much exercise or too much rest and inactivity is undesirable and detrimental.

Mental stimulation may well be as important as physical activity. The response of the aged individual to social and recreational programs has been quite impressive. The mind would seem to atrophy with disuse just as the muscles do.

The effectiveness of these 3 recommendations is dependent on usage. Usage in turn is contingent on education intramurally within the professions, and extramurally through all media. There has been a tendency in the past to approach the health needs of the aged too diffusely. It would probably be far better to take one specific item such as periodic health appraisal and push it for all we are worth.

Finally, in so far as the individual physician is concerned, the problem of aging is not his alone, but the medical profession does have a considerable responsibility. There is certainly nothing more fundamental than health, and the private physician must work with each individual patient to foster health maintenance and chronic disease control, as well as with the community resources to promote these programs.

Every physician must work toward rehabilitation of the patient to maximal function, and this involves a knowledge of facilities and services available and coöperative planning. While it may be desirable to return every individual to gainful employment, it is economically sound to rehabilitate even to a self-care level.

(*Continued on page 196*)

News and Personals

MEETINGS

The Rheumatism Society of the District of Columbia, in conjunction with the Medical Society of the District of Columbia, will present a lecture by Professor E. G. L. Bywaters on "Still's Disease" in the Medical Society auditorium, Thursday evening, March 24, at 8:00 p.m. Dr. Bywaters is Chief of the Rheumatism Research Unit of the Canadian Red Cross Memorial Hospital at Taplow, Maidenhead, Berkshire, England. All members of the Medical Society are invited to attend.

The 11th Annual Northern Virginia Clinical Assembly will be held, April 3, at Wakefield High School in Arlington. The scientific program, to be presented by the staff of the National Institutes of Health, will embrace the following papers:

"The National Institutes of Health and the Clinical Center in Their Relationship with the Medical Community," Dr. Clifton K. Himmelsbach, Associate Director of the Clinical Center

"Changing Concepts of Bacterial Infectious Diseases in Their Relationship to Specificity and Changing Sensitivity to Antibiotics," Dr. John P. Utz, Head of the Infectious Diseases Service, Laboratory of Clinical Investigation, National Institute of Allergy and Infectious Diseases

"Some Instructive Endocrinopathies," Dr. Roy Hertz, Chief, Endocrinology Branch, National Cancer Institute

"Connective Tissue Disease: Current Concepts and Treatment," Dr. Robert L. Black, Arthritis and Rheumatism Branch, Clinical Investigations, National Institute of Arthritis and Metabolic Diseases

"The Use and Abuse of Tranquilizers," Dr. Jonathan O. Cole, Chief, Psychopharmacology Service Center, National Institute of Mental Health

"The Place of the Clinicopathologic Laboratory in the Diagnosis of Disease," Dr. George Z. Williams, Chief, Clinical Pathology Department of the Clinical Center

A luncheon for physicians attending the meeting will be sponsored by Drug Fair. Cocktails and buffet supper in the evening, for doctors and wives, will be a feature of the Assembly through the courtesy of Peoples Drug Stores. Dr. Christopher J. Murphy, Jr., is General Chairman of the Assembly.

All members of the Medical Society of the District of Columbia are cordially invited to attend the program and social functions.

The Section on Ophthalmology of the Medical Society of the District of Columbia is holding a meeting of unusual interest on April 4 at the Kennedy-Warren. The Ophthalmic Pathology Club, which consists of 30 of the Nation's leading physicians in the field of ophthalmology, is meeting in Washington and will present the program. Two subjects will be discussed, "Lens Induced Inflammation in Glaucoma" and "Exfoliation versus Pseudo-exfoliation." Panelists will be:

Dr. Georgiana Dvořák Theobald, Associate Professor Emeritus of Ophthalmology, University of Illinois

Dr. Michael Hogan, Professor of Ophthalmology, University of California in San Francisco

Dr. John McGavic, Professor of Ophthalmology, Temple University

Dr. A. Ray Irvine, Jr., Associate Clinical Professor of Ophthalmology, University of California at Los Angeles

Dr. Parker Heath, Director of the Lancaster Course at Waterville, Maine; Emeritus Professor of Clinical Ophthalmology, Harvard University.

This meeting is open to all interested physicians. Dinner will be served at 7 p.m., preceded by a social hour. Those who are unable to attend the dinner are welcome to come to the program, which will begin at 8 p.m. Reservations for the dinner, at $6 each, should be made a week in advance with Dr. Paul E. Zehfuss, Secretary-Treasurer, telephone Sterling 3-9356.

The Saint George Society, which consists of medical students of George Washington, Georgetown and Howard Universities, is sponsoring a meeting on "Cancer of the Central Nervous System" in coöperation with the D. C. Division of the American Cancer Society. The meeting will be held on Monday, April 11, at 8 p.m., in the auditorium of the Gorman Diagnostic Building at the Georgetown University School of Medicine.

Dr. Frank Nelson Miller, Associate Professor of Pathology, George Washington University School of Medicine, will moderate the panel and will also participate as a panelist. Other members of the panel are Dr. T. Wilkins Davis, Associate Professor and Head of the Department of Radiology, Howard University; Dr. Alfred B. Luessenhop, Clinical Instructor in Surgery (Neurosurgery), Georgetown University School of Medicine; and Dr. Harold Stevens, Professor of Neurology, George Washington University School of Medicine.

The meeting is open to all interested physicians.

The West Virginia Academy of Ophthalmology and Otolaryngology will hold its annual meeting at the Greenbrier Hotel, White Sulphur Springs, West Virginia, April 10–12. The following program has been arranged:

"The Surgical Management of Glaucoma," Dr. Harold G. Scheie, Professor of Ophthalmology, University of Pennsylvania

"Adult Ocular Tumors," Dr. Charles E. Iliff, Associate Professor of Ophthalmology, Johns Hopkins University

"Plastic Surgery in Otolaryngology," Dr. Oscar T. Becker, Clinical Associate Professor of Otolaryngology, University of Illinois

"Pediatric Ocular Tumors," Dr. Helen J. Ossofsky, Assistant Professor of Pediatrics, Georgetown University

"Modern Treatment of Otosclerosis," Dr. John T. Dickinson, Department of Otology, University of Pittsburgh.

A registration fee of $10, required of non-members, will cover all scientific sessions and social functions. Further information may be secured from Dr. A. C. Esposito, Secretary, First Huntington National Bank Building, Huntington, West Virginia.

The Medical and Chirurgical Faculty of the State of Maryland will hold its annual meeting, April 20, 21 and 22 at The Alcazar in Baltimore. Washington physicians are invited to attend the meetings. The program will be as follows:

April 20, 2:15 p.m.: "Congenital Anomalies of the Esophagus"—the I. Ridgeway Trimble Lecture, Dr. Willis J. Potts, Surgeon in Chief, Children's Hospital, Chicago

Psychiatric Panel: Dr. Frederick H. Allen, University of Pennsylvania; Dr. Leo H. Bartemeier, Seton Institute, Baltimore; and Dr. M. Ralph Kaufman, Mount Sinai Hospital, New York

April 20, 8:30 p.m.: Panel on Biological Effects and Hazards of Ionizing Radiation: Dr. Russell H. Morgan, Johns Hopkins University; Dr. Donald R. Chadwick, Secretary of Federal Radiation Council; Dr. Richard H. Chamberlain, University of Pennsylvania; and Dr. William B. Looney, Johns Hopkins University

April 21, 9:15 a.m.: Hypertension Panel: Dr. E. Cowles Andrus, Johns Hopkins University; Dr. Edward D. Freis, Georgetown University; and Dr. Irvine H. Page, Cleveland Clinic

J. M. T. Finney Fund Lecture: Lt. General Leonard D. Heaton, Surgeon General of the Army

"Stein-Leventhal Syndrome (Polycystic Ovary Syndrome)," Dr. Robert B. Greenblatt, Professor of Endocrinology, Medical College of Georgia

Round Table Luncheon (Park Plaza Hotel), 12:30 p.m.: 25 round table discussions on various phases of medicine.

Afternoon Session: Diabetes Panel: Dr. T. S. Danowski, University of Pittsburgh; Dr. Francis D. W. Lukens, University of Pennsylvania; and Dr. Henry T. Ticketts, University of Chicago

"Immunization for Young and Old," Dr. Joseph E. Smadel, Associate Director, National Institutes of Health

Clinicopathologic Conference: Drs. Thomas M. Durant and Ernest Aegerter, Temple University

Evening: Presidential Dinner (Sheraton Belvedere Hotel) followed by a general meeting. Dr. Virgil T. DeVault, Medical Director of Foreign Service, Department of State, will speak on "Medicine Behind the Iron Curtain and in Other Foreign Countries."

April 22, 9:30 a.m.: "Chemosurgery of the Basal Ganglia in Parkinsonism, Dystonia Musculorum Deformans and Multiple Sclerosis," Dr. Irving S. Cooper, Professor of Research Surgery, New York University

"Atypical Variants of Viral Hepatitis," Dr. Gerald Klatskin, Professor of Medicine, Yale University

"Histaminic Cephalgia: Differential Diagnosis and Treatment," Dr. Bayard T. Horton, Emeritus Staff, Mayo Clinic.

The medical staff of the **Sinai Hospital of Baltimore** will mark the relocation of its quarters by holding a scientific meeting at the new Hospital, located at Belvedere Avenue at Greenspring, on April 24. A diversified program has been arranged to interest physicians in all branches of medicine. The speakers will be:

Dr. Edward C. Curnen, Jr., University of North Carolina; Dr. Clarence Dennis and Dr. Louis M. Hellman, State University of New York, Downstate Medical Center; Dr. Saul J. Farber, New York University; Dr. Simon Koletsky, Western Reserve University; Dr. J. Stauffer Lehman, Hahnemann Medical College; Dr. Morton L. Levin, University of Buffalo; Dr. Irving M. London, Albert Einstein College of Medicine, Yeshiva University; and Dr. Franz Reichsman, University of Rochester.

After serving Southeast Baltimore for 93 years, the Hospital was moved 5 months ago to its new site in the northwest section of the city. The new facility contains an increased number of beds and bassinets, larger quarters for the School of Nursing, and an outpatient department designed to handle up to 100,000 visits per year. A 3-floor, modern research building has been provided to allow for continuation and enlargement of the various research projects being carried out by staff members. The long-standing association with the Johns Hopkins University and Hospital, as well as with the University of Maryland School of Medicine will continue as closely as before.

GENERAL NEWS

The Executive Board of the Medical Society of the District of Columbia held its first meeting of the year, January 25, 1960, with Dr. William Ross Morris, the new Chairman, presiding. The Nominating Committee on November 2, 1959, had recommended that the Second Vice President of the Society be invited to attend meetings of the Executive Board. Members were receptive to the suggestion and voted that beginning with the February 23 meeting the Second Vice President be invited to attend all meetings of the Board.

The Board was advised that extra copies of the Report of the Council on Rehabilitation were being stored in the Medical Society's building and would be available for persons not receiving courtesy copies. The Board voted to charge $1.50 per copy, the funds derived from this source in excess of cost of handling to be set aside for the use of the new Committee on Rehabilitation and Chronic Diseases.

Dr. Frederick O. Coe was nominated to succeed himself as Vice President of the Washington Academy of Sciences, representing the Medical Society. He has held this office for many years.

A letter from Dr. John F. Keaveny, Secretary of the D. C. Dental Society, written on behalf of the organizations's Executive Committee, requested that a liaison committee be established with the Medical Society. President Alfaro recommended the creation of a Committee on Coöperation with the D. C. Dental Society and submitted the names of the following appointees: Dr. U. V. Wilcox, Chairman, Dr. Russel S. Page, Jr., and Dr. Arthur Dick. The Board confirmed the appointment of these members to the Committee.

In accord with previous policy the Board voted to contribute $100 to the Joint Board on Science Education for the Greater Washington Area.

A new special study committee of the American Medical Association has initiated action on the establishment of a scholarship program for medical students. The AMA House of Delegates, in December, acting on the recommendation of the Council on Medical Education and Hospitals, adopted a resolution that a scholarship fund should be established to aid deserving students wishing to enter the field of medicine, and that such a fund be backed by the AMA as a primary sponsor.

Dr. L. S. McKittrick, of Brookline, Mass., who is Chairman of the Council, will serve as chairman of the committee. Dr. William F. Norwood, Chairman of the Division of Legal and Cultural Medicine, College of Medical Evangelists, Los Angeles, was named staff director. Dr. Hugh H. Hussey, Dean of Georgetown University School of Medicine and a member of the Board of Trustees of the AMA, was named to the 12-member committee along with the deans of the Schools of Medicine of Kansas, Wisconsin, Pennsylvania, and Kentucky.

The committee will assume other duties in addition to the scholarship program. It will seek to develop and implement a program which will provide adequately for the future medical needs of the United States. The committee will also seek ways to solve the overall problem of increasing medical education facilities to keep pace with the Nation's ever-expanding population and the growing demand for medical service. The group will make its first report at the Annual Meeting of the AMA in Miami next June.

The Third International Congress of Physical Medicine will be held at the Mayflower Hotel in Washington, August 21–26, 1960. A preliminary prospectus covering the conference carries in detail

COMMISSIONER McLAUGHLIN ADDRESSES WOMAN'S AUXILIARY

THE HONORABLE ROBERT E. McLAUGHLIN, President of the District of Columbia Board of Commissioners, addressed the Woman's Auxiliary to the Medical Society of the District of Columbia, February 10, on the timely topic, "Our Town." MRS. G. LOUIS WELLER, JR. (left), President of the Auxiliary, is an interested listener to a pre-meeting discussion between the guest speaker and MRS. WILLIAM F. BURDICK, the Auxiliary's Program Chairman. The meeting was held in the Medical Society's library.

information on registration, application to present a paper, a scientific exhibit, a scientific film, etc. This prospectus may be secured by writing Dorothea C. Augustin, Executive Secretary, 30 North Michigan Avenue, Chicago 2, Illinois.

In connection with the Congress, the R. D. Grant Company, of Cleveland, is offering a cash award of $1,000 for the best paper on "Etiology of Decubitus Ulcers." Deadline for manuscripts is May 2, 1960. Information covering the rules and regulations may be secured from the offices of the International Congress of Physical Medicine.

Members of the Medical Society are cordially invited to attend **meetings of the Society's Obstetrical Board** which are held on call the third Monday of the month at 8 p.m. in the Medical Society's auditorium. Dr. C. K. Fraser, Chairman of the Board, suggests that interested physicians telephone the Society's Executive Offices (District 7-3111) and leave their name and address with Mrs. Evelyn DeBray of the Circulation Department.

The Washington Psychiatric Society announces the publication of the 1960 edition of the Directory of Psychiatrists and Clinical Psychiatric Facilities in the Washington area. This is the sixth edition of the Directory. In addition to listing the names, addresses and data of psychiatrists in the Washington Metropolitan Area, it provides information about the staff, clinic hours, and services available from the outpatient psychiatric clinics in the area. Copies of the Directory are available at $3.00 each and may be secured from Dr. Morris Kleinerman, Treasurer, 2025 Eye Street, N.W., Washington 6, D. C.

The Section on Physical Medicine and Rehabilitation was officially organized on January 28, 1960, when the following officers were elected:

Dr. Charles S. Wise, *Chairman*; Dr. Charles D. Shields, *Vice Chairman*; Dr. Isadore Levin, *Secretary*; and Dr. Margaret M. Kenrick, *Treasurer*.

The Executive Board will consist of the officers and two other electees, Drs. Josephine J. Buchanan and Francis L. Wenger.

The International Medical Club of Washington elected the following officers at its meeting, February 1, at the DuPont Plaza Hotel:

Dr. Arthur A. Morris, *President*; Dr. Donald Stubbs, *Vice President*; Dr. Robert Choisser, *Secretary*; and Dr. Oscar B. Hunter, Jr., *Treasurer*.

Dr. Edgar P. Copeland and Dr. Harry Lee Claud were elected Second and Third Vice President, respectively, and Dr. A. B. Bennett, Historian.

Guest speaker was Dr. Walter Alvarez, Professor Emeritus of Internal Medicine at the Mayo Clinic and University of Minnesota School of Medicine.

Children's Hospital Research Foundation elected new officers recently. Mr. Robert B. Swope, Past President of Children's Hospital, is the new President, succeeding Dr. Edgar W. Davis. Other officers elected were Dr. William S. Anderson, Vice President, and Dr. William F. Burdick, Secretary.

Dr. Robert L. Faulkner, Executive Secretary of the **American Board of Obstetrics and Gynecology,** advises the Editorial Offices of the MEDICAL ANNALS as follows: "... After July 1, 1962 the Board will require a minimum of 3 years of approved progressive Residency Training to fulfill the requirements for admission examination. After the above date, training by Preceptorship will no longer be acceptable. Therefore, the initiation of Preceptorships will not be approved after July 1, 1960."

Mr. Robert F. Butts, of Birmingham, Alabama, has been named **Executive Secretary-Treasurer of the Southern Medical Association.** He will also retain his duties as Business Manager. Dr. Edwin Hugh Lawson, of New Orleans, President of the Association, also announces the appointment of Mr. V. O. Foster as professional relations counselor. Mr. C. P. Loranz will continue as advisor and special consultant.

Dr. Austin Smith, President of the Pharmaceutical Manufacturers Association, announces the appointment of two new members to his staff. Dr. Robert J. Benford, formerly Editor of the *U. S. Armed Forces Medical Journal*, will be Director of Medical Relations for PMA, and Mr. Milton Golin, formerly Editor of the "Medicine at Work" section of *The Journal of the American Medical Association*, will be assistant to the President of PMA for special projects.

Dr. Benford retired in February as Colonel in the U. S. Air Force Medical Corps, where, in addition to his Journal editorship, he has served as Director of the Armed Forces Medical Publication Agency. He has also been Editor of *Aerospace Medicine* for the past 5 years.

Georgetown University Hospital is publishing a new monthly bulletin entitled, *GH Cues*. The first issue, January 1960, states that the publication will present "reports on individual services, research projects, volunteer aid—all the functions that add up to make Georgetown Hospital great." Mrs. Shirley Wilson, P.H.N., is Editor.

PERSONALS

Dr. William P. Herbst was awarded the St. George Medal and Citation, a national award of the American Cancer Society for outstanding service in cancer control, at a luncheon meeting of the Board of Trustees of the District of Columbia Division of the American Cancer Society, held at Providence Hospital, February 11. He received the award from Mr. Wylie W. Barrow, President of the D. C. Society.

An original incorporator of the D. C. Division of the American Cancer Society, Dr. Herbst has been active in the Society's cancer control activities for more than 15 years. He is presently serving as its Vice President. He is on the teaching staff of Georgetown University School of Medicine as Clinical Professor of Urology and serves as civilian consultant to Walter Reed Hospital, the National Naval Medical Center, and the National Institutes of Health. He is President-elect of the Middle Atlantic Section of the American Urological Association.

DR. HERBST CITED BY CANCER SOCIETY

DR. WILLIAM P. HERBST (left), Washington urologist, displays with considerable pride the St. George Citation for outstanding service in cancer control to DR. VICTOR R. ALFARO, President of the Medical Society of the District of Columbia. The national award of the American Cancer Society was presented at a luncheon meeting of the Board of Trustees of the D. C. Division of ACS, February 11, at Providence Hospital.

Dr. Herbert P. Ramsey was named Chairman of the new Hospital Advisory Council to the District Commissioners at its first meeting, January 26.

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Information, through which requests for speakers for lay groups, including radio programs, can be filled.

Date	*Speaker*	*Subject or Title*	*Organization*
December 11	Dr. Josephine Renshaw	Obstetrics	Inga's Angle, WRC-TV
December 15	Dr. Charles Hufnagel	Heart Surgery	Inga's Angle, WRC-TV
December 18	Dr. Nicholas Pistolas	Care of Children's Eyes	Inga's Angle, WRC-TV
December 22	Dr. James Chapman	MEDS (Medical Emergency Disaster Service)	Inga's Angle, WRC-TV
December 29	Dr. W. Deaver Kehne	Mental Health	Inga's Angle, WRC-TV
January 4	Dr. Allan M. McKelvie	MEDICO	University Women's Club
January 8	Dr. Marvin Fuchs	Allergy Problems	Inga's Angle, WRC-TV
January 15	Dr. Crawford Brown	Care of the Skin	Inga's Angle, WRC-TV
January 19	Dr. William P. Herbst	The Physician's Role in Public Health	Inga's Angle, WRC-TV
January 22	Dr. Earl H. Mitchell	Alcoholism	Inga's Angle, WRC-TV
January 24	Dr. Christopher T. Bever	Ethics of Psychoanalysis	Washington Ethical Society
January 25	Dr. Robert J. Coffey	Trends in Surgery	Ladies Board of Georgetown University Hospital
January 25	Dr. Charles J. Savarese, Jr.	Household Poisons: How Safe Is Your Home?	Family Living Series, Silver Spring Branch Library
January 25	Dr. John R. Pate	The Psychology of the Sick and the Handicapped	Friendly Visitors Orientation Program, Health and Welfare Council of the National Capital Area
January 26	Dr. Maurice Protas	Diabetes as I Saw It in Moscow	Lay Society of Fresno County (Calif.) Diabetes Association
January 26	Dr. Preston A. McLendon	White House Conference on Children and Youth	Inga's Angle, WRC-TV
January 29	Dr. John M. Keshishian	MEDICO	Inga's Angle, WRC-TV
February 2	Dr. R. Lomax Wells	Safety Programs in Industry	Inga's Angle, WRC-TV
February 8	Dr. Josephine J. Buchanan	"The New Look" of the Department of Physical Medicine and Rehabilitation at D. C. General Hospital	D. C. Chapter, National Rehabilitation Association
February 9	Dr. Charles P. Ryland	Medical Bureau—Emergency Calls	Inga's Angle, WRC-TV
February 12	Dr. Benjamin Manchester	Early Diagnosis of Heart Conditions	Inga's Angle, WRC-TV
February 16	Dr. William Burdick	Common Childhood Diseases	Inga's Angle, WRC-TV
February 19	Dr. Frank Pellegrini	Appendicitis	Inga's Angle, WRC-TV
March 8	Dr. William Lewis	Business Man and His Health	Washington Printing Guild

Dr. Josephine J. Buchanan was elected Secretary. The Council succeeds the former Hill-Burton Advisory Council and will advise the Commissioners on hospital regulations and on expenditure of funds for hospital construction and operation.

Dr. George E. Schreiner, Associate Professor of Medicine, Georgetown University School of Medicine, will be heard as a panel participant in a Postgraduate Radio Program to be broadcast by the New York Academy of Medicine over WNYC-FM, April 21 and April 28. Both programs will consider glomerulonephritis and pyelonephritis.

Dr. Frederick J. Balsam, of Baltimore, an Associate member of the Medical Society, writes that he has been transferred from the Veterans Administration to the Social Security Administration, where he will be Consultant in Physical Medicine and Rehabilitation to the Division of Disability Operations. Dr. Balsam has also received a faculty appointment to the Department of Physical Medicine and Rehabilitation of the University of Maryland School of Medicine.

Dr. Edward A. Cafritz has been elected President of the Kaufmann Camp for Washington Boys and Girls, which he helped to found in 1953. The camp is located in Huntington, Md., and provides summer vacations for 750 underprivileged children.

Dr. E. Parker Luongo, of Los Angeles, an Associate member of the Medical Society, has been appointed Regional Medical Director for the West Coast by the Mobil Oil Company. Dr. Luongo has been Medical Director for the General Petroleum Corporation since 1947. This company became part of Mobil Oil Company on January 1, 1960.

Dr. Lawrence J. Thomas has been reëlected national Treasurer of Phi Lambda Kappa.

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interest of our readers and as space permits. Physicians are urged to submit reviews of additional books which, in their opinion, merit comment.

The Clonal Selection Theory of Acquired Immunity. The Abraham Flexner Lectures—1958. SIR MACFARLANE BURNET. Price, $5.00. Pp. 209. Nashville, Tenn.: Vanderbilt Univ. Press, 1959.

Pyelonephritis. FLETCHER H. COLBY, M.D., Consultant, Massachusetts General Hospital; Former Chief of the Urological Service and Associate Clinical Professor, Harvard Medical School. Price, $7.50. Pp. 214. Baltimore: Williams & Wilkins, 1959.

Scoring Human Motives: A Manual. JOHN DOLLARD, Professor of Psychology, Yale University, AND FRANK AULD, JR., Associate Professor of Psychology, Wayne State University. Price, $9.50. Pp. 452. New Haven, Conn.: Yale Univ. Press, 1959.

Babies by Choice or by Chance. ALAN F. GUTTMACHER, M.D. Price, $3.95. Pp. 289. Garden City, N. Y.: Doubleday, 1959.

The Acute Medical Syndromes and Emergencies. Diagnosis and Treatment. ALBERT SALISBURY HYMAN, M.D., Associate Clinical Professor of Medicine, New York Medical College, New York, N. Y. With the collaboration of SAMUEL WEISS, M.D., Professor of Gastroenterology Emeritus, New York Polyclinic Medical School, New York, N. Y.; GEORGE GUTTMAN ORNSTEIN, M.D., Associate Clinical Professor of Medicine, New York Medical College, New York, N. Y.; HOWARD F. ROOT, M.D., Medical Director, Joslin Clinic, Boston, Massachusetts; ANNA RUTH SPIEGELMAN, M.D., Assistant Professor of Clinical Medicine, New York University Postgraduate Medical School, New York, N. Y.; AND JACK ABRY, M.D., Associate Attending Physician, New York City Hospital, Elmhurst, N. Y. Price, $8.75. Pp. 442. New York: Landsberger, 1959.

Lymphocytes and Mast Cells. MARGARET A. KELSALL, B.A., M.A., PH.D., Research Staff (Biology), Research Service Laboratories, University of Colorado, AND EDWARD D. CRABB, B.A., M.A., PH.D., Professor of Biology, University of Colorado, Boulder, Colorado. Price, $8.00. Pp. 399. Baltimore: Williams & Wilkins, 1959.

Metabolic Care of the Surgical Patient. FRANCIS D. MOORE, M.D., Moseley Professor of Surgery, Harvard Medical School; Surgeon-in-Chief, Peter Bent Brigham Hospital. Illustrated by Mildred Codding, A.B., M.A., Surgical Artist, Department of Surgery, Harvard Medical School, Peter Bent Brigham Hospital. Price, $20.00. Pp. 1011, with 143 illustrations. Philadelphia: Saunders, 1959.

Collected Reprints of the National Foundation for Infantile Paralysis; Vol. XVIII, Part I, 1957, Part II, 1957; Vol. XIX, Part I, 1958, Part II, 1958; Index for 1952–1956.

Christopher's Minor Surgery, 8th ed. Edited by ALTON OCHSNER, M.D., F.A.C.S., Professor of Clinical Surgery, Tulane University School of Medicine, AND MICHAEL E. DEBAKEY, M.D., F.A.C.S., Professor of Surgery and Chairman of the Department of Surgery, Baylor University College of Medicine. Price, $10.50. Pp. 539, with 347 illustrations. Philadelphia: Saunders, 1959.

Doctor Strand. BORIS SOKOLOFF. Price, $3.50. Pp. 205. New York: Vantage, 1960.

The Triumph of Surgery. JÜRGEN THORWALD. Translated by Richard and Clara Winston. Price, $6.50. Pp. 454. New York: Pantheon Books, 1960.

The Emergency Syndromes in Pediatric Practice ALFRED J. VIGNEC, M.D., Clinical Professor of Pediatrics, New York University, College of Medicine, New York, N. Y.; Medical Director and Pediatrician-in-Chief, New York Foundling Hospital, New York, N. Y.; and Director of Pediatric Division, St. Vincent's Hospital, New York, N. Y. Price, $9.00. Pp. 382, illustrated. New York: Landsberger, 1959.

LINN FENIMORE COOPER, B.A., M.D.

(1899–1959)

Dr. Linn Fenimore Cooper, a Washington physician who in recent years had contributed his services to missions in Africa and Borneo, died of encephalitis, November 13, 1959, in Sarawak, on the northwest coast of Borneo. He had been ill only a few days.

Although he was not associated with any religious denomination, Dr. Cooper gave his services to Catholic missions because he wanted to use his medical skills where they were needed and did not feel capable of filling the role of both doctor and clergyman, which is common in most Protestant missions.

Dr. Cooper was born in Albany, N. Y., May 5, 1899, to James Fenimore Cooper, an attorney, and Susan Sage Cooper. He was a great-grandson of the American novelist, James Fenimore Cooper. He graduated from Yale University with a Bachelor of Arts degree in 1921 and received his medical degree from Harvard in 1926. The next 2 years he interned at Massachusetts General Hospital, and was assistant resident physician at Johns Hopkins Hospital from 1928 to 1930.

An internist, he was on the medical staffs of Georgetown University and old Emergency Hospitals. He was Medical Director of the Washington Home for Incurables from 1938 to 1941. He was on the teaching staff of Georgetown University as Associate Professor of Clinical Medicine for many years.

During World War II Dr. Cooper entered service as a Major in the Medical Corps of the Army and was separated as Colonel 4 years later, in 1946.

Returning to Washington after the War he did not reënter private practice. Instead he turned to teaching and research. In the early 1950's he went abroad to serve with Catholic medical missions in Ghana and Sarawak, a British crown colony. In recent years he served with another mission in Kanowit, Sarawak. He returned there not long ago after a short vacation in this country.

He maintained a home in Washington at 2222 Q Street, N.W., where his offices before World War II were also located.

He was a member of the American Medical Association and an Active member of the Medical Society of the District of Columbia since 1936.

Surviving him are two brothers, Dr. Henry S. Fenimore Cooper, of New York City, and Paul Fenimore Cooper, of Cooperstown, N. Y.

RUSSELL MORSE WILDER, B.S., Ph.D., M.D., M.A.C.P.

(1885–1959)

Dr. Russell Morse Wilder, internationally known nutritionist and former Director of the National Institute of Arthritis and Metabolic Diseases, died, November 16, 1959, in Rochester, Minnesota, where he was an emeritus member of the staff of the Mayo Foundation.

Dr. Wilder was born in Cincinnati, Ohio, November 24, 1885. He received two degrees, Bachelor of Science (1907) and Doctor of Philosophy (1911), both from the University of Chicago. He obtained his medical degree from Rush Medical College in 1912.

Dr. Wilder was on the staff of the Mayo Foundation from 1919 to 1950, with the exception of 2 years, 1929 to 1931, when he was Chairman of the Department of Medicine at the University of Chicago. He returned to the Foundation in 1931 as head of the Mayo Clinic's Department of Medicine.

In World War II he served as Chief of the Civilian Food Requirements Branch for the U. S. War Administration.

He was a specialist in the diseases of metabolism and nutrition and an authority on diabetes. Among many scientific awards he received was the Banting Medal, presented to him in 1947 by the American Diabetes Association. His contributions to the latter field included the publication in 1940 of "Clinical Diabetes Mellitus and Hyperinsulinism" and a "Primer for Diabetic Patients," originally published in 1922, with the ninth edition published in 1950.

In 1954 he was presented the Joseph Goldberger Award in clinical nutrition by the American Medical Association. This Award was made at the annual meeting of the Food and Nutrition Board of the National Research Council. Dr. Wilder participated in the organization of the Food and Nutrition Board in 1940 and was its first chairman; he remained a member of the Board until 1950. He was also a member of the AMA's Council on Foods and Nutrition from 1933 through 1951.

In 1954 the Russell M. Wilder Fellowship for post-doctorate training in the science of nutrition was established by the National Vitamin Foundation, Inc.

Dr. Wilder became the first Director of the National Institute of Arthritis and Metabolic Diseases shortly after it was created by Congress in 1950. He resigned the position on July 1, 1953, because of ill health, and returned to Rochester.

He was a member of the American Medical Association, a Master of the American College of Physicians, and a member of many other scientific organizations. From 1951 until 1953, while Director of the Institute, he was affiliated with the Medical Society of the District of Columbia as an Associate member.

Surviving him are his wife, Mrs. Lucy Wilder, of Rochester, Minn., and two sons, Dr. Russell M. Wilder, Jr., internist in Topeka, Kan., and Dr. Thomas Wilder, surgeon in Spokane, Wash.

WILLARD PAYNE McNEILL, M.D., F.A.C.S.

(1910–1959)

Dr. Willard P. McNeill, general surgeon at the Washington Sanitarium and Hospital in Takoma Park, Md., died, December 28, at the Hospital after a short illness.

Dr. McNeill was born in Takoma Park, Md., April 11, 1910, to the late Stanley E. McNeill and Bertha E. McNeill, who survives him. He lived there until he moved to Spencerville, Md., three years ago.

Following premedical study at Washington Missionary College, he studied for a year at Maryland University. He received his degree in medicine from the College of Medical Evangelists in Loma Linda, Calif., in 1935. He interned at the Maryland General Hospital in Baltimore. Ten years later he enrolled at Harvard Medical School for postgraduate study in gynecology.

Dr. McNeill was a general practitioner in Silver Spring, Md. from 1936 to 1948. The following year he took a residency in surgery at the College of Medical Evangelists. He returned East to serve at Sibley Memorial Hospital, Bryn Mawr Hospital (Pennsylvania), and the Harvard and Massachusetts General Hospitals. In 1956 he joined the staff of the Washington Sanitarium and Hospital.

Dr. McNeill was a member of the American Medical Association, the Montgomery County Medical Society, the Medical and Chirurgical Faculty of Maryland, and an Associate member of the Medical Society of the District of Columbia from 1940 until his death. He was a Fellow of the American College of Surgeons.

An active member of the Seventh Day Adventist Churches in Silver Spring, Takoma Park, and Spencerville, he held many offices in them. Among his church projects was the organizing of the Medical Cadet Corps. He had served in the Army Reserve as chief of the Emergency Medical Service, Office of Civilian Defense in Montgomery County during World War II.

He leaves his wife, Mrs. Dorothy Beardsley McNeill; two daughters, Judy and Jeanine; and two sons, James and Donald, all of Spencerville, Maryland. His mother lives in Takoma Park.

LESLIE TRACY GAGER, M.D.

(1890–1959)

Dr. Leslie T. Gager, cardiologist, died December 25, 1959. He lived at 5215 Massachusetts Avenue, N.W.

Born August 27, 1890, in Norwich, Conn., Dr. Gager was a descendant of founders of Norwich and wrote articles on early Connecticut history.

Following his graduation from Johns Hopkins University in 1918, he served in the Army Medical Corps during World War I. He practiced in New York City from 1922 to 1927. During this period he was also Instructor in Medicine at Cornell University.

Dr. Gager came to the District of Columbia to engage in private practice in 1927. He served on the staffs of George Washington University and Garfield Memorial Hospitals. He was also Clinical Instructor in Medicine at George Washington University for a number of years. He served in Veterans Administration posts after World War II. To the literature he contributed a book on "Hypertension."

He was an Active member of the Medical Society of the District of Columbia from 1928 until 1937.

Surviving him are his wife, Mrs. Josephine Chapman Gager; a son, John Gager; and two daughters, Mrs. Sheldon Childs, of Easton, Pa., and Mrs. Malcolm Moos, of Baltimore, Md.

Testing of Peripheral Nerve Function—Wise

(*Continued from page 143*)

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Diagnostic Problems in Ovarian Carcinoma—McKelway and Barter

(*Continued from page 159*)

at which the carcinoma is discovered. Since pelvic examination remains our best diagnostic method in early detection of ovarian cancer, we should stress the need for routine pelvic examination in all patients undergoing physical examination.

The second recommendation should be directed toward early diagnosis of any pelvic tumor. As shown in this study, a significant number of ovarian carcinomas occurred in patients who had been examined periodically because of "myomata." The danger in long observation of myomata does not lie in the possibility of a myoma becoming malignant, but in the possibility that a myoma actually represents an ovarian lesion. The risk of missed diagnoses with subsequent death due to carcinoma certainly outweighs that of exploratory laparotomy or colpotomy. As Dr. Meigs has said, "It is perfectly all right to observe a patient with a myoma if you know that it is a myoma, but how do you know it is a myoma without actually seeing it."

Health Problems of the Aged—Kleh

(*Continued from page 186*)

More physicians are becoming interested in nursing homes and homes for the aged in the community—because of necessity. There is an ever-increasing need for paramedical facilities and services, and the interest of the physician is being extended to active participation in planning for such facilities and their programs, again as a coöperative venture.

The immediate need for action by the medical profession in the area of cost of medical and nursing care for the aging people has recently, and rather forcefully, been brought to the doctors' attention by the American Medical Association in its actions concerning the Forand Bill. This needs no elaboration.

Despite the increased interest and activity of the physicians, and the medical profession in general, the health needs of the aging can only be met by an integrated community program. There must be coördinated planning in the areas of housing, recreation, social activities, and rehabilitation, for all of these contribute to the health and welfare of the aged.

ANNUAL FINANCIAL STATEMENTS

THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

BALANCE SHEET

December 31, 1959

ASSETS

Cash:		
General Fund	$61,068.46	
Building Fund	3,922.54	
Davidson Lecture Fund	137.61	
Bequest Fund	12,943.84	
Kober Library Fund	4,822.80	
Frank M. McChesney Fund	500.00	
Sterling Ruffin Bequest Fund	12,958.02	$96,353.27
Accounts Receivable		14,284.86
Securities		18,038.52
Fixed Assets—Net after Depreciation (Land, Buildings—1718 & 1710 M St., N.W., Furniture & Fixtures)		228,479.90
Other Assets (Grants to Rehabilitation and Cancer Programs)		4,630.18
TOTAL ASSETS		$361,786.73

LIABILITIES AND NET WORTH

Notes Payable (Union Trust Company—for remodeling 1710 M St., N.W.)	$28,000.00
Accounts Payable (Trade Creditors)	1,417.44
Bonds Payable (called for redemption)	200.00
Collections for Trust and Other Funds (AMA Dues 1960)	6,710.57
Other Liabilities (Grants and Taxes)	2,177.95
Deferred Income (Society Dues 1960)	27,162.55
TOTAL LIABILITIES AND DEFERRED INCOME	$65,668.51
NET WORTH	296,118.22
TOTAL LIABILITIES AND NET WORTH	$361,786.73

STATEMENT OF INCOME AND EXPENSES

Year Ended December 31, 1959

INCOME:			
Membership Dues		$70,755.00	
Other Income:			
Medical Annals		70,916.54	
Medical Bureau		103,029.11	
Annual Scientific Assembly (net loss)		*588.41*	
Rental Income 1710 M St., N.W.		7,317.35	
Miscellaneous		1,372.34	
TOTAL INCOME			$252,801.93
EXPENSES:			
Maintenance of Building		$6,699.53	
Maintenance of Office:			
Staff Salaries	$40,818.29		
Operating Expenses	10,606.70	51,424.99	

(*Continued on next page*)

STATEMENT OF INCOME AND EXPENSES

(Continued)

Society General and Special Expenses		12,353.75	
Expenses of Property—1710 M St., N.W.		6,512.73	
Medical Annals:			
Salaries	12,436.00		
Operating Expenses	46,921.02	59,357.02	
Medical Bureau:			
Salaries	$77,401.90		
Operating Expenses	22,153.52	99,555.42	
TOTAL EXPENSES EXCLUSIVE OF DEPRECIATION			$235,903.44
Excess of Income over Expenses before Depreciation			$16,898.49
Deduct: Depreciation and Transfers			9,150.04
NET INCREASE IN NET WORTH			$7,748.45

ESTIMATED BUDGET 1960*

INCOME:			
Membership Dues		$70,250.00	
Other Income:			
Medical Annals		66,725.00	
Medical Bureau		102,550.00	
Rental Income—1710 M St., N.W.		6,800.00	
Miscellaneous		1,800.00	
TOTAL INCOME			$248,125.00
EXPENSES:			
Maintenance of Building		$6,375.00	
Maintenance of Office:			
Staff Salaries	$44,700.00		
Operating Expenses	10,700.00	55,400.00	
Society General and Special Expenses		15,125.00	
Expenses of Property—1710 M St., N.W.		7,570.00	
Medical Annals:			
Salaries	$12,436.00		
Operating Expenses	52,644.00	65,080.00	
Medical Bureau:			
Salaries	$79,900.00		
Operating Expenses	23,420.00	103,320.00	
TOTAL EXPENSES			$252,870.00
Excess of Expenses over Income			*$4,745.00*
Transfer to Building and Equipment Funds			*3,000.00*
NET EXCESS OF EXPENSES OVER INCOME			*$7,745.00*

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*Adopted at the Annual Business Meeting of the Medical Society of the District of Columbia, November 22, 1959. Action on the above budget was taken prior to approval of an increase in Active membership dues.

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Book Reviews

Neurology of Infancy. Anatole Dekaban, M.D., Ph.D., Price, $12.00. Pp. 388. Baltimore: Williams & Wilkins, 1959.

The neurologic diseases of the first 2 years of life present a number of problems both in diagnosis, prognosis and treatment which do not exist in the older age groups. The causes for this are manifold, but certainly the anatomic and physiologic maturation of the central nervous system and the coincident pathophysiology are of the greatest importance. It is a delight, therefore, to read a well-illustrated volume, such as this, wherein these special considerations are treated accurately and appropriately.

Approximately one sixth of the book is devoted to a review of the developmental anatomy and physiology of the central nervous system in infancy and a detailed outline of the many changes in the neurologic examination which this development implies. In the remainder of the book, the author considers the various clinical conditions occurring in infancy, their pathology, management and prognosis.

As in any work of this kind some sections are in greater detail than others. For the most part, this is dependent on consideration of space and the author's interest. The chapters on dysraphic states and metabolic and endocrine disorders, for example, are exemplary in their concise yet fully adequate presentation of current thought in these problems. The chapter on encephalitis and encephalomyelitis, however, is quite extensive, with considerable detail as to the pathologic differentiation. While this is of great interest to the neurologist, it is of perhaps lesser interest to the pediatrician, and certainly to the general practitioner. In contradistinction, the chapter on progressive degeneration of the central nervous system includes a brief discussion of diffuse cerebral sclerosis which might profit from a somewhat more detailed pathologic consideration. This is a small reservation, however, in a book which otherwise is most admirable.

It should be read by every physician who deals with the problems of infancy.

Charles E. Edwards, M.D.

Scoring Human Motives: A Manual. John Dollard and Frank Auld, Jr. Price, $9.50. Pp. 452. New Haven, Conn.: Yale Univ. Press, 1959.

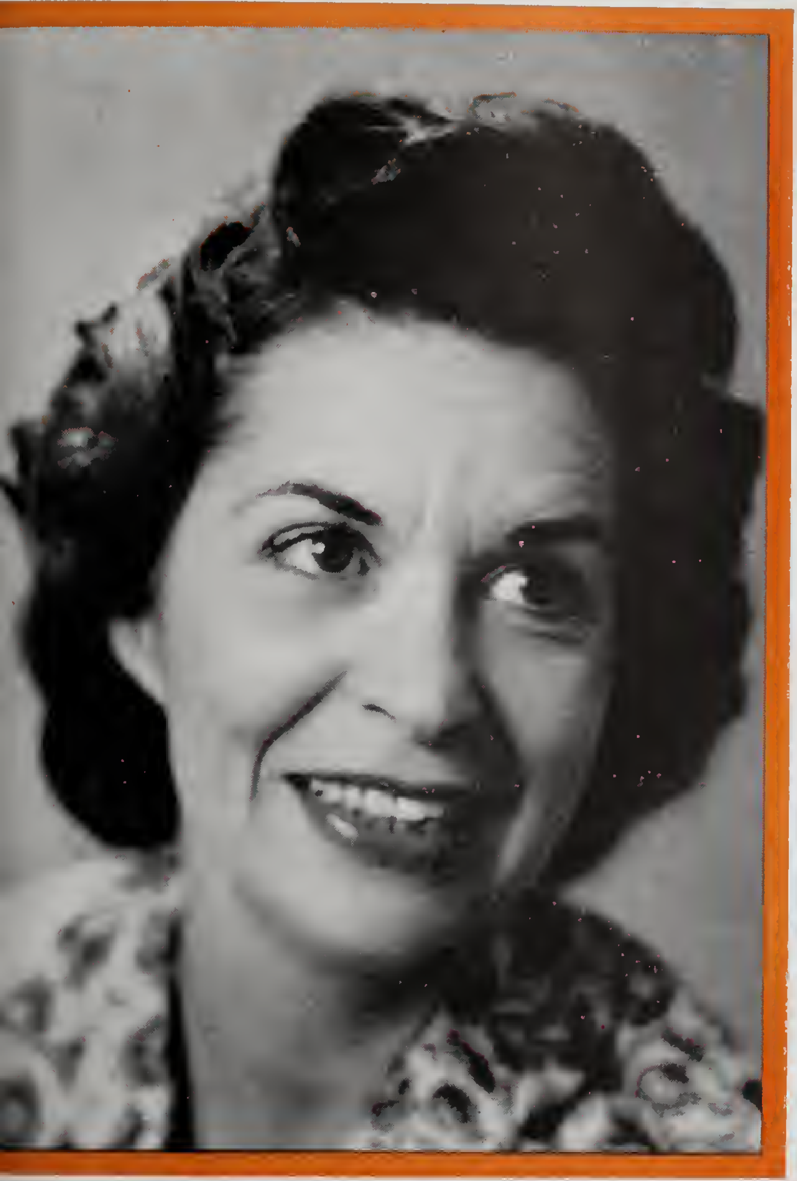
This book proposes a methodology for studying the psychotherapeutic process in order to enhance the skills of the therapist and to develop objective tools for evaluating its validity. Through the collection of sound recordings, which are transcribed, the actual interview is fragmented into sentence units and categorized as to its content. This is a most welcome endeavor, since it has become a most necessary step in the further development of psychotherapy to develop some objective devices to validate our hypotheses and refine our skills. However, in doing this we must be particularly cautious that we do not organize our tests so that they merely reaffirm existing theory rather than appraise the essence of the psychotherapeutic process. This is a major objection to this book, since it bases its categories on classical psychoanalytic theory, in spite of the authors' investment in learning theory, and overlooks the significant developments in psychoanalytic theory in the last 30 years. This objection is highlighted in a statement which is crucial to the whole thesis of the book. On page 140, the authors state that "the therapist has to uncover unconscious motives in the patient to the end that the patient. . . . " To this notion many therapists and theorists would add that the goal of therapy is to elucidate the patient's living patterns, of which uncovering unconscious patterns is only a minor part of the process. Thus the book may serve to quantify data from classical therapeutic work but would be largely misleading and perhaps meaningless from other theoretical frameworks. The definitions of unconscious, resistance, sex, etc., which are so crucial to the scoring technics, are applicable only to those theories of personality development in which the definitions apply. Aside from this objection it is important to note that while quantification will certainly add to our knowledge of the therapeutic process, the analysis of verbal content, however skilled, and insightful, still remains a most ineffective means of comprehending the essence of the healing process. Since we have no better means at our disposal, as yet, we need to be grateful for the methodology proposed by the authors. While defective in many respects, it concerns itself with a most pressing need, that of extending the influence of psychotherapy as a more rational effective healing instrument.

Leon Salzman, M.D.

Handbook of Poisoning: Diagnosis and Treatment, 2nd ed. Robert H. Dreisbach, M.D. Pp. 474. Price, paper, $3.50. Los Altos, Calif.: Lange, 1959.

The second edition of "Handbook of Poisoning: Diagnosis and Treatment" by Robert H. Dreisbach is exactly what it purports to be. It can be carried in the intern's pocket for ready reference when he is working

(*Continued on page 60*)



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Book Reviews

(*Continued from page 54*)

in the emergency room of a hospital. The chances, however, of an intern seeing enough cases of poisoning to warrant his carrying the book on his person are small. The small print in the book would probably be of no handicap to the young intern.

If the printing, and, consequently, the book, were made a little larger, it would serve as a useful reference book in every emergency room and poison center in the country. The various drugs in each group are arranged in tabular form, usually alphabetically, for ready reference. The symptoms and treatment are listed in staccato-like fashion, which is probably ideal for students who take examinations and physicians who treat poisonings.

Modern methods of resuscitation, such as the Nielson method and mouth and airway resuscitation, are included. This book is definitely recommended for those who have occasion to treat patients with poisonings.

Lawrence E. Putnam, M.D.

Color Atlas and Management of Vascular Disease. William T. Foley, M.D., F.A.C.P., and Irving S. Wright, M.D., F.A.C.P. Price, $18.00. Pp. 170, illustrated. New York: Appleton, 1959.

This book is a compilation of 192 color photographs, which represent the vascular lesions of 94 different patients. Short case histories accompany the disease entities.

A brief discussion of the clinical features and therapy of some of the diseases is included. However, this portion of the book is very brief and incomplete.

The colored pictures are of exceptionally good quality. The paper, printing, and binding are excellent.

This book, by means of colored pictures, reproduces very clearly some of the commonly seen vascular diseases. One drawback is that most of the cases shown are those that are well known to most family physicians, so that seeing many pictures of varicose veins, gangrene of the foot, ecchymoses, leg and foot ulcers, etc., probably won't entice many physicians to purchase this book.

Michael A. Corrado, M.D.

Love and Marriage in a Changing World. James Lyman Whitney, M.D. Pp. 477. San Francisco: Parker Printing Company, 1958.

Dr. James Lyman Whitney has presented in this treatise an original and most thoughtful analysis derived from an accumulation of observations, associations, and experiences over a period of many years. This work, published in 1958, 23 years after his death, encompasses all aspects of marriage to include the ideals and the pitfalls of the institution itself, its obligations and responsibilities to society as a whole, and the attainment of individual fulfillment. Although the patterns of culture are perpetually undergoing change, the ideal of marriage with its coexistence of personalities remains constant. The author has been thorough and indiscriminate in expressing his observations with regard to customs and morals and the potential ensuing emotional conflicts and medical complaints resulting from personal maladjustment to the code of society or to the institution. As Whitney, a Jungian analyst, states, "I am concerned with the nonconscious psyche—the subconscious and its importance to the psychological understanding of marriage."

As a pediatrician this volume is of profound interest, because the mental health of the young is directly proportionate to the problems arising from an unhealthy emotional environment. In addition, it is a study with value to those persons dealing with the many psychosomatic complaints in today's adult population, and presents a pertinent commentary of significance to all who are concerned with the spiritual well-being of the individual, and to the layman as well. This investigation is timeless as well as timely.

Hugh G. Clark, M.D.

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MEDICAL ANNALS
of the
DISTRICT OF COLUMBIA

VOLUME XXIX *April*, 1960 NUMBER 4

NATIONAL INSTITUTES OF HEALTH NUMBER

This is the seventh of a series of special numbers of the MEDICAL ANNALS, the scientific material for which is supplied by medical institutions and scientific organizations in the Washington Metropolitan Area. For the NATIONAL INSTITUTES OF HEALTH NUMBER, the Editorial Board is indebted to Dr. Luther Terry, Assistant Director of the National Heart Institute, a Consulting Editor of the MEDICAL ANNALS, who secured the papers which appear in this issue.

CLINICAL RESEARCH AT NATIONAL INSTITUTES OF HEALTH

JACK MASUR, M.D.

Assistant Surgeon General, Public Health Service, Department of Health, Education, and Welfare; Director, The Clinical Center, National Institutes of Health

THE GROWTH in relative incidence and importance of the chronic and disabling illnesses in recent decades, together with the remarkable advances achieved in the application of physics and chemistry to the study of biological problems, has brought significant changes in the scope and financing of research related to these disciplines. The patterns and directions of work at the National Institutes of Health and at virtually every other institution in the United States concerned with medical research have reflected these changes. Thus, although this article will be concerned primarily with the clinical research activities of NIH, and necessarily will be brief, it will indicate by implication some of the changes that are in progress in universities, medical schools, laboratories, and many hospitals throughout the Nation.

Since its founding in 1887 NIH has been the principal research branch of the U. S. Public Health Service and has engaged in a wide variety of medical investigations. Until World War II the bulk of this work was in, and substantial contributions were made to, such fields as bacteriology, virology and immunology and in the helminthic and protozoal diseases.

Beginning in 1937 with the creation of the National Cancer Institute, the functions of NIH have expanded to meet the challenge posed by the growing problem of chronic diseases. The present organization reflects this purpose and includes 7 semi-autonomous Institutes concerned with research in broad disease categories. Together with several supporting divisions, including a large clinical research center, these form the present-day National Institutes of Health.

The scope of the NIH program is indicated by the 1959 fiscal-year appropriations from Congress: Cancer, $75.3 million; Heart, $45.6 million; Arthritis and Metabolic Diseases, $31.2 million; Neurology and Blindness, $29.4 million; Mental, $52.4 million; Allergy and Infectious Diseases, $24.1 million; Dental, $7.4 million; and General Medical Sciences, $29.0 million.

In accordance with the pattern of recent years, about three-fourths of these funds for the past fiscal year were used to support research and training activities in other than Federal institutions. The remainder financed NIH's own laboratory and clinical research, principally at Bethesda, and the administration of research, training and construction grants to non-Federal institutions and individuals.

Known as the Clinical Center, the NIH research hospital was opened in 1953. It has 516 beds and is especially designed to permit combined laboratory and clinical study of highly selected patients sent to us by physicians in every state in the Union.

At this point a brief review of the present-day relationships between laboratory and clinical research might be in order. For this purpose I will paraphrase from an address by the Associate Director of NIH, Dr. Joseph Smadel, at the recent dedication ceremonies of a laboratory building at the New England Center Hospital in Boston.

The question is sometimes asked why modern medicine depends so heavily upon laboratory study that was not needed for many of the great medical advances of the past. I believe this is simply a manifestation of the law of diminishing returns. There was a limit to the new knowledge of heavenly phenomena that could be obtained with the unaided eyes of the early astronomers. Similarly, there is a limit to important medical findings through observation of the incidence or the signs, symptoms and morbid anatomy of disease.

With the increasing complexity of biological questions it has become necessary for medical research to resort more frequently to the methods and principles of chemistry, physics and mathematics. Inevitably, in its dependence on these specialized disciplines medical science has had to become equally compartmentalized.

But neither man nor knowledge can be divided into discrete compartments that function independently of each other. Thus, one of the most important roles of clinical medicine and clinical research is to serve as a unifying force which binds all biological science into an integrated, meaningful whole.

Paradoxically, however, as scientific investigation becomes more highly specialized, the lines of distinction between branches of science grow more tenuous each year. We are increasingly concerned with learning more about the activities of molecules within individual living cells. On the other hand, evidence accumulates concerning the interaction of all the tissues, organs and fluids which comprise the living body, and of the medical significance of interactions between human individuals and groups and the rapidly changing environment in which we live.

Thus we no longer can afford to think of disease or health in terms of a single factor or of simple cause and effect but rather as the result of multiple causes: of the inherited molecular defect; the interaction between invading organism and host; of the environmental factor or the traumatic episode; and then of the incredibly complicated physicochemical chain reactions thus initiated.

Whether employed in clinical investigations or in medical practice, application of these concepts requires the skills of many kinds of laboratory and preclinical specialists utilizing extremely complex apparatus, under the continuous supervision of well qualified physicians. This means that for the most part they must take place in a hospital that is adequately served by basic and preclinical science laboratories.

And thus throughout the country we find research laboratories within or adjacent to hospitals being established or enlarged.

The need for a clinical facility to supplement NIH laboratory and field investigations was recognized as far back as 1911. With the new emphasis on chronic disease, closely integrated laboratory and clinical study was felt to be mandatory, and plans were begun in 1946 to make such work possible. Construction was begun in 1948, and the first patients were admitted to the Clinical Center 5 years later.

Contrary to an impression frequently encountered among both laymen and physicians, we are not a diagnostic center and are not primarily interested in rare or undiagnosable conditions. Instead, our research programs for the most part require patients selected from among the more common illnesses. In other words, a patient is accepted by one of our Institute Clinical Investigators on the basis not only of having been referred by his own physician but because it has already been established that he has a form and stage of illness and other characteristics specifically suited to the rather precise requirements of a currently active clinical study. The major exception to this rule is the volunteer normal patients, a considerable number of whom are hospitalized each year for periods ranging from a few weeks to several months. These patients are selected through coöperative arrangements with certain church organizations and constitute a unique resource for the investigation of many important fundamental, biochemical and metabolic problems.

Medical and surgical services are provided by physicians of the Institute in which the patient is being studied. The standard hospital services, such as nursing care, dietetics, diagnostic radiology, rehabilitation, and social services, are provided by the Clinical Center's central organization. Liaison with referring physicians, medical societies, and hospital accrediting agencies are among other essential activities coördinated or carried out by the Clinical Center staff.

Upon discharge of the patient his referring physician is sent a full report of findings and, when indicated, recommendations which may be helpful in the further management of the patient.

Broad medical policies are recommended by a Medical Board appointed by the Director of the National Institutes of Health from among top medical personnel of the Institutes and the Clinical Center staff. When approved by the Director, these policies become binding on all staff members concerned with clinical research and patient care. They are coördinated by the Director of the Clinical Center, who also serves as staff advisor to the Director, National Institutes of Health, on the nonresearch aspects of the clinical program.

From the outset of the clinical program it was felt that a wide geographic dispersion of referring physicians was desirable for several reasons, 2 being of particular importance:

1. To avoid the introduction of economic and geographic bias in the scientific results of clinical studies.

2. The need to have a sufficient number of referrals to insure enough patients in certain uncommon diagnostic categories and to enable more precise selection of patients with the common diagnoses.

When full bed activation was achieved early in 1958, an extensive, continuing program was initiated to acquaint physicians throughout the nation with the Clinical Center mission, referral procedures, and the diagnostic requirements of currently active studies. The basis of this program is a mailing list of physicians who have indi-

(*Continued on page 254*)

PROPHYLAXIS OF VIRAL INFECTIONS*

GEORGE M. OWEN, M.D.

Clinical Associate, Laboratory of Clinical Investigation, National Institute of Allergy and Infectious Diseases

ONE PRACTICAL benefit of the rapidly increasing knowledge of virus diseases has been new and improved immunizations against them. It is indicative of the activity of research in this field that commercially prepared vaccines are now available for prevention of some virus infections etiologically defined only a few years ago. Such a rapidly changing field requires constant review by physicians in order to provide optimum prophylactic programs for their patients. This report has been prepared for that purpose and describes present immunization procedures against a number of important viral infections. Those considered are listed below:

Poliomyelitis (types I, II, and III)
Smallpox
Rabies
Influenza (types A and B)
Yellow Fever
Mumps
Adenovirus (types 3, 4, and 7)
Eastern and Western equine encephalitis

Poliomyelitis Vaccination

Salk vaccine contains poliovirus and material from a tissue culture medium which includes amino acids, vitamins, soluble monkey kidney protein and horse serum, and antibiotics which control bacterial contamination.[1] Formaldehyde, filtration processes and ultraviolet irradiation inactivate the viruses. Any degree of infectivity which may persist after inactivation is detected by inoculation of vaccine into monkeys and subsequent histopathologic and virologic examination of the central nervous system of these animals.[2]

The potency of poliovaccine is determined by calculating the average of the antibody responses in a number of monkeys inoculated with an unknown dosage in comparison with those from a reference vaccine. The vaccine has been stored at 4°C for 12 months without loss in antigenic potency, but it should not be kept unrefrigerated for periods longer than 7 days.[3]

Allergic reactions have occurred rarely with the administration of Salk vaccine.[1] Most reactions have been of a minor nature, but more severe neurologic complications such as acute cerebral edema and myelitis have been reported.[4] Efforts to determine the cause or causes of reactions have not been rewarding except in some instances in which penicillin was implicated. No untoward effects have followed the use of polio vaccine in persons previously sensitized to the Rh factor.

It has been stated that the objective in the use of inactivated poliovirus vaccine is to achieve an immunologic state that will afford protection for the central nervous system but not necessarily for the gastrointestinal tract.[5] There is now ample evidence that use of the vaccine achieves this objective and that the incidence of paralytic polio in vaccinated persons has been reduced. It is clear that there exists some correlation between antibody response to vaccination and protection against paralytic poliomyelitis.[6] The reported occurrence of paralytic polio in triply-vaccinated persons may possibly be explained by the use of low-potency vaccines, by the less responsive immunologic mechanisms in some persons, and by the more rapid loss of antibody in others or by the occurrence of paralytic illnesses other than poliomyelitis.

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* Read before the West Virginia Chapter of the American Academy of General Practice, June 20, 1959.

Pregnant women respond in a normal fashion to administration of polio vaccine with development of good antibody titers.[7] Antibody thus formed is passed transplacentally to the offspring and may be detected in the infants for several months. However, infants seemingly produce their own polio antibody more readily if they are vaccinated after passively-transferred antibody has disappeared.[8]

The duration of immunity is an important consideration in the evaluation of the poliovirus vaccine, but inadequate time has elapsed since the vaccine was first introduced to permit a final analysis, and it is uncertain what effect subsequent natural infection may have upon the immunity provoked by the vaccine.[9] Use of killed-virus vaccine does not prevent infection of the alimentary tract with poliovirus.[4, 10, 11] It has been suggested that an accelerated antibody response to natural infection may provide protection after measurable antibody has disappeared.[5] However, after oral administration of attenuated poliovirus vaccine the antibody response occurred no more rapidly and was no greater quantitatively in persons previously given the Salk vaccine than in nonimmune subjects.[12]

Data accumulated during the past 4 years by health authorities concerned with the study of poliomyelitis in this country permit the following observations[13]:

1. Vaccination programs have been most successfully promoted in school-age children, and this group has had a lower incidence of paralytic poliomyelitis than other population groups.

2. The highest incidence of paralytic poliomyelitis has been in unvaccinated preschool children of poor socioeconomic status, presumably because of their known low rate of vaccination.

3. It is an accepted fact that the vaccine is not 100 per cent effective. Some triply-vaccinated individuals have acquired paralytic poliomyelitis, but present evidence indicates that this is becoming less of a problem.

A clinical diagnosis of poliomyelitis, if paralysis occurs without encephalitis, can be made in a high percentage of cases. Yet, it must be recognized that paralysis occurs in other viral diseases of the central nervous system.[14-17] In addition, infection with Coxsackie, ECHO, mumps, St. Louis, Eastern and Western equine, lymphocytic choriomeningitis and herpes simplex viruses account for a large proportion of cases of nonparalytic, aseptic meningitis which may be labeled "nonparalytic polio" unless appropriate studies are performed to identify the etiologic agent.[18]

Information which only the practicing physician can gather is essential for determining the effectiveness of vaccination against poliomyelitis. Each physician should:

1. Confirm the diagnosis by laboratory tests
2. Determine the degree of residual paralysis in all cases
3. Record dates of administration and doses of vaccine given and lot numbers of vaccine used.

The importance of recognizing and reporting cases of poliomyelitis occurring within 30 days following vaccination cannot be overemphasized in view of previous difficulties attending use of certain lots of vaccine.

At the present time vaccination against poliomyelitis with the Salk vaccine is recommended for all persons 40 years of age or less. The customary course of injections for older children and adults consists of 2 successive 1 ml. doses 1 month apart, followed by a third injection after an interval of 7 months. A fourth injection 1 year later is suggested. The recommendation for infants is: polyvalent vaccine (diphtheria, tetanus, pertussis and polio) beginning at 2 months of age, 3 successive 0.5 ml. doses at monthly intervals, followed by a fourth injection at 11 or 12 months of age. A fifth injection of 1 ml. of Salk vaccine is recommended 12 months later, and until additional information is forthcoming it is suggested that Salk vaccine boosters

(1 ml.) be given subsequently at intervals of 4 years to coincide with booster injections of diphtheria and tetanus toxoid.[19-21]

Immunization against poliomyelitis has been accomplished by the oral administration of live attenuated poliovirus.[4, 12, 22, 23] Suggested advantages of the oral vaccine are:

1. Longer lasting protection for the central nervous system and the alimentary tract
2. Simple administration
3. Economy
4. Freedom from vaccination reactions.

It appears that the strains of poliovirus (attenuated) now being used are potent antigenically and lack virulence. Persons taking the oral vaccine have developed an asymptomatic infection of the alimentary tract which in some cases persisted for 1 to 3 months with high titers of virus in the feces. No rise in antibody titer was seen in persons, presumed nonimmune, if they failed to excrete infective virus in feces.[4, 22] Attenuated virus failed to infect the gastrointestinal tract in naturally immune individuals, whereas both nonimmune subjects and persons previously given Salk vaccine were similarly susceptible. An antibody response was demonstrated 5 to 21 days after administration of oral vaccine. The presence of passively transferred (maternal) antibody in infants did not appear to prevent alimentary tract infection with attenuated poliovirus, although children less than 2 months of age were more difficult to immunize.[24] Eight years have elapsed since some children were given attentuated poliovirus, and significant titers persist, but natural infection with wild poliovirus may have occurred in the interim.

It has been demonstrated that attenuated polioviruses may spread from test subjects to susceptible persons and that a slight increase in virulence has occurred after passage in volunteers, but the neurotropism in these circumstances appeared to be much less than that of wild strains of poliovirus recovered from healthy children during nonepidemic periods.[4, 25]

For the present it would appear that the use of the oral vaccine will be limited to field trials, but in the future the Salk vaccine and the living attenuated poliovirus vaccine may be used together.

SMALLPOX VACCINATION

Smallpox vaccine, collected from vesicle fluid of vaccinated calves, contains the vaccinia virus, lymph and serum protein, and a certain number of presumed nonpathogenic bacteria. Glycerin-saline and phenol are used as diluent and preservative, respectively. To preserve potency, this vaccine must be kept frozen below 4°C until time of use.[26]

Successful vaccination (development of vesiculation) with a dried smallpox vaccine prepared from calf-lymph has been found to confer immunity similar to that produced by the standard glycerinated preparation.[27]

Smallpox vaccine has also been prepared from embryonated hen eggs.[28, 29] It has been used in clinical trials as a glycerinated preparation, as a sorbitol-stabilized fluid and as a vacuum-dried, sorbitol-stabilized vaccine. Results of these studies suggest that protection, as estimated by reactions to revaccination with the standard glycerinated calf-lymph vaccine, was comparable to that conferred by the standard preparation. Possible advantages of vaccine derived from embryonated hen eggs include:

1. Bacteriologic sterility
2. Storage in lyophilized form is possible
3. Rapid production.

Smallpox vaccination is accomplished by the introduction of the living vaccinia virus into the skin. Detectable antibody may be found in 1 to 2 weeks, reaching a maximum titer in 2 to 4 weeks, and persisting at good levels for 5 to 7 years. Complications of vaccination include[30]:

1. Postvaccinal encephalitis (most cases occurring in children who have primary vaccination after 5 years of age)
2. Generalized vaccinia (possible delayed antibody response)

3. Eczema vaccinatum (skin disorder in vaccinee or susceptible contact)
4. Progressive vaccinia (failure of antibody response, due in some instances to agammaglobulinemia)
5. Bacterial infections at vaccination site (including tetanus).

Smallpox vaccination may be delayed until the infant is 6 to 10 months of age. Revaccination has been recommended every 5 to 7 years. Failure to develop some reaction at the vaccination site does not indicate immunity but rather suggests that impotent vaccine or faulty technic is to blame.

RABIES VACCINATION

The Semple vaccine is used most frequently in this country. This product contains heat or ultraviolet-inactivated rabies virus, 5 to 20 per cent animal brain tissue, and a small amount of phenol or thimerosal as preservative. There has been some experience in the use of a Flury vaccine, which is a live, attenuated virus preparation obtained from embryonated hen eggs.[31] This vaccine has not been demonstrated conclusively to produce adequate immunity, and its use in man is not recommended for treatment after exposure.

Another vaccine, recently made available, is a sterile, freeze-dried suspension of killed virus prepared from embryonated duck eggs.[32] It is administered subcutaneously (1.0 ml. doses in adults and 0.5 ml. doses in children) daily for 14 days, employing different injection sites.

Reported undesirable reactions to these vaccines include:

1. Local erythematous reactions at injection sites
2. Regional lymphadenopathy
3. Giant urticaria
4. Systemic reactions (malaise, fever and chills)
5. Postvaccinal encephalitis and paralysis (may be less frequent with use of the new vaccine).

Rabies antiserum is a purified and concentrated horse serum product which must be given within 72 hours of exposure to be effective. As much as possible of the calculated doses (0.5 ml./Kg. of body weight) of antiserum should be infiltrated locally around and under the bite wounds and the remainder given intramuscularly.

Since immunity may not develop rapidly enough after vaccination to afford protection in some cases, the use of rabies antiserum in conjunction with vaccine (table 1) is believed to provide the best prophylaxis in man.[31] This combination should always be employed in cases of severe exposure.

Prophylaxis before exposure to rabies is recommended in persons who run considerable risk of animal bites because of occupation.[33] Three intradermal doses of a Flury vaccine at 5-day intervals prepared persons to respond to a booster dose. In a number of persons it has been found that a single injection of this vaccine given several years after previous immunization for rabies resulted in a prompt and significant antibody rise. Probably such a booster effect may be expected from any potent rabies vaccine. However, it is currently recommended that if reexposure to rabies occurs more than 6 months after last administration of any rabies vaccine, a full treatment schedule with a conventional vaccine should be undertaken. If reëxposure occurs less than 6 months after previous immunization, 2 doses of vaccine administered 1 week apart may be adequate.

INFLUENZA VACCINATION

Influenza vaccines are prepared from the allantoic fluid of embryonated hen eggs. This material is purified to reduce the concentration of egg protein and nonviral material, and the virus is rendered noninfective by either ultraviolet irradiation or formalin treatment.[34]

Some correlation exists between influenza antibody (hemagglutination-inhibition) titers and immunity, as those individuals with higher levels of circulating antibody have had a lower incidence of influenza. Attack rates have approximated 80 per cent in unvaccinated individuals without detectable influenza antibody, while rates in vaccinated persons with significant antibody titers have reached only 25 per cent.[35] Nevertheless, the absence of detectable antibody does not necessarily mean lack of immunity, nor does the presence of circulating antibody necessarily assure protection.

The amount of virus in influenza vaccine determines the antibody response and influences the incidence of reactions. In older children and adults the use of a high titer vaccine should afford good antibody production with a low incidence of allergic reactions. In young children the incidence of reactions may be reduced by administering multiple small doses of vaccine at intervals.[36] Very young children given 0.1 ml. doses of vaccine at 7-day intervals apparently have been adequately protected.[37]

At present, routine administration of influenza vaccine to all children is not recommended. In children with chronic illnesses, e.g., heart disease, cystic fibrosis of the pancreas, bronchiectasis, and in children living in institutions or other crowded environments, the use of the vaccine seems indicated.[19, 38] Contraindications to the use of influenza vaccine are known sensitivity to egg protein and acute febrile illness. In view of the antigenic variance, polyvalent vaccine will have to be used to assure adequate prophylaxis against influenza.

TABLE 1

Indications for Specific Treatment after Exposure to Rabies[33]

I. Rabid or unknown condition (escaped, killed or wild animal)		
	Immediate Treatment	*Situation*
	Antiserum and vaccine	1. Indirect contact with children or persons unable to give reliable history 2. Licks (abraded skin or intact mucosa) 3. Simple or severe bites (multiple or on head and neck)
II. Signs suggestive of rabies (animal under observation)		
	Immediate Treatment	*Situation*
	Antiserum and vaccine*	1. Licks (abraded skin or intact mucosa) 2. Simple or severe bites
III. Healthy animal (under observation)		
	Immediate Treatment	*Situation*
	1. Antiserum 2. Give vaccine	1. Multiple or severe bites 2. If animal develops clinical signs of rabies or if proven rabid

* May withhold vaccine as long as animal remains healthy or, if started, may stop if animal is normal on fifth day after exposure.

Yellow Fever Vaccination

A single injection of vaccine (containing active avirulent 17 D virus) will provide effective protection against yellow fever for 5 to 6 years.[39, 40] Vaccination is indicated only in persons likely to be exposed by travel or occupation to yellow fever.

Reactions occur infrequently following administration of the vaccine (17 D strain) employed in this country, but may include:

1. General febrile reaction
2. Specific encephalitis (Children less than 1 year of age should not be vaccinated unless absolutely necessary.)
3. Allergic reactions (Persons known to be sensitive to egg protein should be tested intradermally first and if positive should have the

scarification procedure with the Dakar vaccine.)

There have been no reports of cases of yellow fever in vaccinated laboratory workers.[40]

MUMPS VACCINATION

An inactivated mumps virus vaccine produced in embryonated hen eggs, when given in 2 subcutaneous doses at intervals of 1 to 4 weeks, caused antibody responses in practically all susceptible individuals.[41] Booster injections were required every 6 to 12 months thereafter to maintain the protection. In fact, such spacing of injections after the initial series of 2 injections seemed to give the most satisfactory responses with higher neutralizing antibody titers than those seen after primary vaccination.[42]

There are no clear indications for the use of mumps vaccine except perhaps in exposed susceptible adult males. Inapparent mumps infections are common in children, and many presumed susceptible adults may be shown to have immunity if skin-tested. In such instances use of the vaccine is avoided. This vaccine should not be used in persons known to be sensitive to egg protein.

ADENOVIRUS VACCINATION

The commercially prepared vaccines are aqueous preparations of formalin-inactivated virus (types 3, 4, and 7) grown in monkey kidney tissue culture. Untoward reactions to the administration of this vaccine have not been reported.[43] Ample evidence has been accumulated to support use of adenovirus vaccine (types 3, 4, and 7) in certain military groups in which protection has been achieved in an estimated 50 to 70 per cent.[44] However, most investigators, at present, are not in favor of the use of such vaccines in the civilian population, since serious adenovirus infections or complications are rare and apparently account for only a small fraction of respiratory illnesses in older children and civilian adults.[45, 46] Serologic surveys indicate that adenovirus infections occur early in life, and although documentation of these infections has been infrequent, vaccines are now being tested in younger children against those types most frequently causing illnesses.[47, 48]

EQUINE ENCEPHALITIS VACCINATION

A chick embryo vaccine (formalin-treated) for protection against Western and Eastern equine encephalomyelitis in equines may in unusual circumstances be used in humans.[49]

MEASLES VACCINATION

An attenuated measles virus vaccine has been given subcutaneously to susceptible children without untoward effects.[50] All children vaccinated developed a mild rash or fever, or both, 6 to 10 days after vaccination, although none were ill. Antibody was found in serum after 3 weeks, but how long titers may persist is not yet known. No susceptible contacts developed similar manifestations, and the virus could not be recovered from the throats or blood stream of vaccinated children. Further investigation and study are in progress, and at present the material is not available for general use.

IMMUNIZATION FOR VIRAL DISEASE WITH IMMUNE GLOBULIN

Immune serum globulin is derived from plasma pools of normal healthy blood donors. The preparation designated for use in prevention of poliomyelitis must contain a minimum concentration of poliomyelitis antibody specified by the National Institutes of Health. Immune serum globulin (poliomyelitis) contains antibody in sufficient titer for attenuation or prevention of infectious hepatitis, measles and poliomyelitis (table 2).

Convalescent phase gamma globulin is derived from serum of persons recovering from particular infections and may be useful in conferring passive protection in mumps, smallpox and rubella. Hyperimmune vaccinal gamma globulin is derived from pooled plasma collected

TABLE 2
Use of Immune Sera

Disease	Material*	Dose†	Remarks
Polio	ISG	0.14	Most effective if given before exposure. Must repeat in 6 weeks.
Infectious hepatitis	ISG	0.1 (P)	Children 1 yr. old or with illnesses. Pregnancy. Travel to endemic areas.
Rubeola	ISG	0.02 (A)	All nonimmune persons.
		0.1 (P)	Children less than 3 yrs. of age. Nonimmune pregnant women. Double dose after 6th day of exposure.
Rubella	CSGG	?	Nonimmune women in first trimester of pregnancy. May be useful if given within 5 to 7 days of exposure.
	ISG	0.1	
Mumps	CSGG	5.0 (total dose)	Adult males, if susceptible. Give early after onset of parotitis—questionable effectiveness.
Smallpox	CSGG	0.25–0.5	Additional doses may be necessary.
Eczema vaccinia	HVGG		
General vaccinia			
Progressive vaccinia			

* ISG: immune serum globulin (poliomyelitis)
CSGG: convalescent serum gamma globulin
HVGG: hyperimmune vaccinal gamma globulin

† Dose in ml./lb. body weight:
(A) attenuation
(P) prevention

from human volunteers 4 to 8 weeks after smallpox vaccination. This preparation may be helpful in preventing or treating smallpox or complications occasionally arising after smallpox vaccination.

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CARCINOMA OF THE THYROID GLAND

Aspects of Radioiodine and Hormone Therapy

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THE TREATMENT of carcinoma of the thyroid gland by radioactive iodine has been practiced for over a decade, but only recently has attention been concentrated on the hormonal aspects of this disease. This is a report of those cases of carcinoma of the thyroid studied between 1955 and 1959 and treated with radioactive iodine or with radioactive iodine and thyroid hormones combined.

The present-day management of cancer of the prostate gland and of the breast includes treatment related to the hormone dependence of these tumors. Only recently, however, has this aspect been fully considered in respect to cancer of the thyroid gland. That endocrinologic factors and hormone imbalance may play an important role in the initiation and further growth of thyroid cancer seems now well established. Spontaneous neoplasms have appeared in the mouse and rat associated with excessive stimulation by thyroid-stimulating hormone resulting from either compensatory increased TSH excretion after suppression of the release of thyroid hormone by the use of thiouracil[1-4] or by iodine-deficient diets.[5] Thomas[6] has reviewed the literature in this field and has pointed out the higher incidence of thyroid cancer in Switzerland with its high goiter rate (it is assumed the goiter formation is secondary to hormone imbalance) and the concomitant decrease in neoplasms and goiter when the goiterogenic factors were reduced. However, Sloan[7] found only a normal incidence of nontoxic goiter in those patients with thyroid carcinoma, although the incidence of benign adenomas was greater.

The treatment of thyroid cancer generally includes total thyroid ablation. If the patient has had no exogenous thyroid hormone, TSH excretion at some time after thyroidectomy would be maximal, and if TSH were to have a direct effect upon thyroid metastases one might expect increased growth at this time. That this is the case has been noted by several authors[6, 8, 9] along with the observation of growth cessation coincident with the administration of exogenous thyroid hormone.[8, 10] Crile[10, 11] and Catz[12] have postulated that the change of slowly growing, even differentiated, dependent tumors after many years to an autonomous anaplastic type of tumor[4, 7] may be due to long-term stimulation by TSH. These aspects of thyroid cancer suggest that by blocking TSH excretion a decrease in growth or possible retrogression might occur in the more dependent tumors,[6, 7, 8, 10-16] and that this might also perpetuate the iodine-trapping ability of the tumor and make it more susceptible to therapy with radioiodine.[10, 11, 12] Since the excretion of thyroid-stimulating hormone is inversely proportional to the amount of thyroid hormone present, the administration of high doses of thyroid hormone, whether in the form of desiccated thyroid, thyroxine or L-tri-iodothyronine, should cause a reduction in the release of TSH. That this does occur has been well documented.[17-20]

The first successful attempt at causing regression of thyroid tumor by the use of high thyroid dosages was first made some 25 years ago.[21] Since then Balme,[22] Crile,[23] Thomas[6] and Maloof[8] have reported cases of thyroid tumor retrogression or inhibition secondary to thyroid hormone therapy. The longest single series has been that of Thomas[19] which contained 10 patients. Of these 10, 5 showed retrogression of tumor during the entire follow-up period, 3 showed a temporary regression followed by continued growth, and 2 showed no change in their growth pattern. As might be anticipated, the best results were in the more differentiated (and presumably more dependent) tumors. Thomas also noted that in the same person individual lesions might respond differently. This would be expected since individual metastases often differ from the primary and from each other in morphologic type.[6, 7, 8, 13, 24]

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METHOD

We have studied 7 cases of thyroid tumor of which 5 received a combination of radioactive iodine and thyroid hormone therapy, 1 received radioiodine but was placed on high doses of hormone only terminally, and 1 received only radioiodine. Other than this essentially the same method of treatment was observed for all patients.

After histologic diagnosis was made, all patients had a total thyroidectomy. This procedure is of major importance for several reasons. Remaining normal thyroid tissue will compete with tumor and take up a large proportion of the radioiodine.[8, 25] Secondly, with total thyroid ablation maximal TSH excretion and stimulation will occur and will frequently cause previously nonfunctioning metastases to trap iodine.[8, 13, 24-28] Total removal rather than merely that of one lobe is also preferable due to the high incidence of contralateral foci, several series having shown an incidence of 11 to 31 per cent additional foci even being present when the gland felt normal to palpation at surgery.[26] When cervical nodes are palpable a radical neck dissection should be carried out. Because of the highly variable effect of radioiodine and thyroid on metastases, any tumor which is easily accessible to surgery should be treated this way. The question of a prophylactic neck dissection on the side of the tumor is still undecided. Several authors have pointed out the high incidence of microscopic metastases when there was no clinical enlargement of nodes. Others believe that due to the rather slow course of this disease such radical treatment is not necessary without gross evidence of involvement. Postoperatively all our patients showed areas of increased concentration of radioiodine. Two patients showed no uptake in areas suspected of metastases prior to thyroidectomy but postoperatively did show uptake in these foci when there had been sufficient time for TSH stimulation. This required up to 7 weeks from the time of surgery. Patients were reevaluated at intervals of 4 to 6 months. Tracer doses of I^{131} were given, and mechanical radioactivity scans of the neck and body were performed and were correlated with clinical findings. The same collimation and general technic were utilized each time. A complete radiographic metastatic series was taken along with the physical examination. Urines were collected for 48 to 96 hours. Patients were placed on L-tri-iodothyronine immediately after a dose of radioactive iodine or a negative scan. In order to achieve as great a TSH suppression as possible dosages were as high as the patient could tolerate in comfort. This was usually 125 to 175 μg. per day. The drug would be discontinued 2 to 3 weeks prior to administration of a tracer dose in order to reachieve maximum TSH stimulation and cell uptake of iodine.

All patients have received therapy with radioactive iodine from the time of diagnosis. Combination therapy with thyroid hormone was instituted from the start only on those 5 patients whose diagnosis was made in the past 24 months.

In one of our cases, the patient received only a very low dose of thyroid hormone due to hypertension and arteriosclerosis. A second patient received doses above maintenance level only terminally. The remaining 5 patients received the previously described régime. Of the 7 patients, 2 were dead at 3½ months and 7 years after the diagnosis was made. Of the remaining 5 patients, 4 are without any evidence of remaining neoplastic tissue, 1 has a remaining metastasis unchanged in 6 years. Of the 2 patients who had radioiodine therapy without thyroid hormone therapy 1 is dead and 1 is alive with persistent but unchanging metastases. Of the 5 patients who received full combined therapy, 1 was dead 3½ months after diagnosis of a highly anaplastic tumor. The remaining 4 patients are alive without evidence of residual tumor.

Short histories of these 7 patients are given below.

REPORT OF CASES

Case 1. P. W., a 34-year-old white woman, first noted an enlarged right cervical node in 1953. A biopsy in 1958 showed a mixed follicular-papillary carcinoma of the thyroid. In April, 1958 the patient had a total thyroidectomy and right radical neck dissection. Tumor was seen in the thyroid but was not found in any other nodes. A tracer dose of radioactive iodine showed remaining uptake in the midline of the neck below the chin. A therapeutic dose of 121.3 mc. of I^{131} was given on July 8, 1958, and tri-iodothyronine was immediately started. There was no other evidence of further metastases. A repeat tracer dose 4 months later did not show the localized area of uptake. The patient has continued to do well without any further signs of tumor and is being maintained on 125 μg. per day of tri-iodothyronine.

Case 2. A. K., a 30-year-old white man with papillary adenocarcinoma, was treated in December 1957 by total thyroidectomy and right radical neck dissection. There were metastases to 6 out of 25 lymph nodes removed from the neck. A tracer dose of radioactive iodine showed 2 areas of markedly increased uptake in the neck. The patient was given 138 mc. of I^{131} in February 1958 and placed on a high dose of tri-iodothyronine. A second dose of 107 mc. of I^{131} was given 4 months later, and in January 1959 another tracer dose of radioactive iodine showed no uptake whatsoever in the neck. Since then the patient has remained free of known residual tissue as evidenced by radioactivity scans, physical examinations, and X-ray films.

Case 3. D. P., a 17-year-old white woman, first noted a swelling in her neck during the winter of 1956–57. In May 1957 X-ray films of the chest were diagnosed as showing a miliary pattern of metastatic disease. A scan of enlarged neck nodes after an I^{131} tracer dose did not show any significant uptake. A radical thyroidectomy in June 1957 showed a follicular-cell carcinoma of the thyroid which was infiltrative throughout the thyroid and in all 14 nodes dissected. A repeat tracer dose 3 weeks later again showed no areas of uptake in the neck or chest or in a palpable submandibular node. The patient Aas kept hypothyroid, and the scan was repeated in wugust 1957 and then showed a high uptake in a right submandibular node, in 2 other areas on the neck, and in the lungs. Excretion was 50 per cent in 96 hours. Over the next 12 months the patient was given 3 doses of radioactive iodine, totaling 424 mc. Doses were given no less than 6 months apart, and the amount was so regulated that the patient received no more than 80 mc. to her lungs in each dose, this being the approximate threshold dose for the production of radiation pulmonary fibrosis. The patient was put on L-tri-iodothyronine, 125 to 150 μg. daily. By February 1959 there were no areas of uptake in the neck, and residual nodes had disappeared. Apparently normal uptake was seen over the lungs. Chest X-ray films have been read as normal and there has been no evidence of tumor in other areas. Vital capacity has remained normal throughout this treatment.

Case 4. M. W., a 34-year-old white woman, first noted a mass in the right side of the neck in 1955. In 1957 this was found on biopsy examination to be papillary carcinoma of the thyroid. The patient was admitted in July 1957, and a preoperative scan revealed no area of uptake other than the normal thyroid. In August a total thyroidectomy and partial right neck dissection were performed. No metastatic nodes were found. In October 1957 repeat scan showed activity in 2 areas in the neck, and the patient was started immediately on L-tri-iodothyronine and in the following 12 months given therapeutic doses of radioactive iodine. It is of interest that during a period when the hormone was withdrawn prior to a scan the patient became extremely hypothyroid and depressed and had hallucinations which were diagnosed as an acute psychosis secondary to hypothyroidism. In June 1958 the scan revealed slight uptakes in 1 cervical node. No radioiodine was given, but the patient was continued on tri-iodothyronine, 100 to 125 mg. per day, this constituting the sole therapy. The patient was scanned again in March 1959 and this time showed no area of uptake in the neck, the small, palpable node having also disappeared.

Case 5. R. H., a 59-year-old white woman, noted a mass in the anterior part of her neck 30 years before which slowly and progressively enlarged and then accelerated in growth in 1957. In May 1958 a subtotal thyroidectomy was performed, at which time a diagnosis of pleomorphic carcinoma with some follicular elements was made. External radiotherapy was administered to 4,000 r, but the gland continued to enlarge. In October 1958 the patient underwent surgery, with completion of the thyroidectomy and partial resection of the remaining tumor mass, which was seen extending laterally and substernally, engulfing the trachea. The patient received a tracer dose of radioactive iodine which demonstrated a large area of increased uptake over only the central area of known remaining tumor. She was given 113 mc. of I^{131} and started on L-tri-iodothyronine, and within a few days began another course of external beam irradiation of the neck, receiving an additional 2,750 r. The patient died 1 month later, with the tumor uncontrolled.

Case 6. R. K., a 43-year-old white woman, was well until 1951, when she first had a convulsion. Craniotomy showed a tumor mass in the temporal region of the brain which was found to be metastatic fetal-cell adenocarcinoma. Total thyroidectomy was performed. In 1951 metastatic bone lesions were noted in the right ilium and calvarium. Subsequent to the discovery of the tumor the patient developed anosmia, decreasing ability to taste, a destructive lesion of the pituitary, moderately severe proptosis of the left eye, and then eventual blindness of both eyes. In 1951 the patient was given her first dose of radioactive iodine, and by 1956 she had received a total dose of 370 mc. Thyroid hormone was given only to euthyroid levels. The patient's course in the years from 1951 to 1958 was one of gradual improvement. She had regained strength and was able to do housework and to take care of her children, but there had been no return of her vision or taste. There was some return in her sense of smell. It should be noted here that the tumor enlarged remarkably and swiftly during the 2 times that the thyroid medication was withdrawn or TSH administered. This accelerated growth ceased as soon as a minimal amount of thyroid hormone was given. By May 1957 the patient had received 1,150 mc. of radioactive iodine. Her pelvis and skull lesions had remained approximately the same size. Over the next 6 months her bone lesion in the ilium seemed to progress and another lesion appeared. In January 1958 another dose of 150 mc. of I^{131} was given. Following this she was placed on 3 grains of desiccated thyroid per day and discharged. In the ensuing 4 or 5 months there was further progression in the lesion in the ilium with spread to L5 vertebra, but other lesions seemed to decrease. Although the pelvic lesions continued to concentrate radioactive iodine, they were evidently now radioresistant. Also, in this period the patient's white blood cell count, which previously had been 4,000, now fell permanently to the range of 1,000 to 1,200. In May 1958 all lesions began to increase in size. The thyroid hormone was raised to a total of 150 μg. of tri-iodothyronine per day. In September the patient was operated upon for a hemorrhagic and obstructive anal mass and died due to postoperative shock and severe anemia.

Case 7. W. O., a 59-year-old white man, first noted progressive weight loss and hoarseness in 1949. Two years later he had a total thyroidectomy, and histologic examination showed adenocarcinoma. One month postoperatively tiny nodules were palpable in the operative site. He was then started on therapy with radioactive iodine, and in 1952 he was shown to have an area of metastases to the left hip. The patient was soon unable to walk. Over the next several years he had repeated doses of radioactive iodine, but due to a heart affection he received only minor to moderate amounts of thyroid and was seen to be generally hypothyroid at all times. As of the last admission the patient had had a total of 1,668 mc. of radioactive iodine. In the past several years I^{131} had been given once in about every 6 months in amounts ranging from 90 to 150 mc. The intensity of uptake over the left hip bone and femur as compared with the surrounding tissues had decreased since 1955. Urinary excretion had increased from 58 per cent in 48 hours when we first saw the patient in 1955 to 77 per cent. Radiographically there has been only minimal change in the hip region, but symptomatically the patient has progressed from a previously crippled state to one where he may now walk painlessly for several blocks at a time without the aid of cane or crutch. There has been no decrease in the blood count, and bone marrow from the sternum and the iliac crest of the affected hip has been repeatedly normal.

Discussion

As in previous reports, best results with hormone and/or radioiodine therapy were obtained with the more differentiated tumors. The 1 patient who obviously had had no response to therapy had a very anaplastic follicular tumor. Within the group there were several instances of what appeared to be direct hormone effect. Patient 6 showed tremendous growth of the palpable tumor on the 2 occasions when all thyroid medication was withdrawn. On 1 occasion the tumor volume was seen to double in a little over 2 weeks. This growth ceased as soon as thyroid medication was reinstituted. Treatment with combined therapy then caused only a slow retrogression of tumor. It might be noted that when this patient's tumor began to grow rapidly its capacity to trap iodine did not decrease. This shows that growth and function are not always interdependent. This has been noted before. Patient 3 did not receive high doses of thyroid until after the second dose of radioiodine, and resolution of the tumor increased decidedly in pace coincident with combined therapy. Patient 4 had residual activity in a palpable nodule some 5 months after her last dose of I^{131}. In the ensuing 6 months medication was limited to hormone therapy with subsequent disappearance of the nodule and activity. This would hardly be expected as a late result of the radioiodine therapy.

Only one, patient 6, had any bone marrow depression, this after 1,150 mc. The fact that she had bone metastases may have contributed to this effect, as mentioned by Pochin.[29] On the other hand, patient 7 has had in excess of 1,600 mc., and bone marrow aspirations from the sternum and the iliac crest of the affected hip showed no hypoplasia.

Although the addition of thyroid hormone seemed to have an effect on the resolution of the tumor, our group is too small to show statistical evidence. The patients selected for therapy all had well differentiated tumors, with one exception, and these are known to be of the more amenable types.[6] In the 4 patients who at this time have no evidence of residual tumor, follow-up time from the first normal scan and X-ray series has been only 7 to 12 months, which is not sufficient to draw any conclusive opinions.

SUMMARY

Certain cancers of the thyroid gland appear to be somewhat hormone-dependent in that the administration of thyrotropic hormone may have a stimulating effect resulting in increased growth and, possibly, a change to an undifferentiated, invasive type of cancer. With the reduction of the thyrotropic hormone tumor growth may be inhibited or even reversed. The patients reported have shown such results.

Of the 7 patients reported 5 received combined therapy with radioactive iodine and thyroid hormone, while 2 received essentially radioactive iodine. All 7 patients had had a prior surgical thyroidectomy, and 5 had had radical dissection of the neck. Four of the patients receiving combined therapy are alive without any evidence of persistent tumor at the time of this writing. One patient receiving combined therapy for a highly anaplastic cancer was dead 3½ months after the diagnosis. Of the 2 whose principal treatment was with radioactive iodine, 1 is alive and well 8 years after diagnosis and the other is dead 7 years after diagnosis.

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SURVEY OF STAPHYLOCOCCAL TYPES IN HOSPITALS IN THE DISTRICT OF COLUMBIA, MARYLAND AND VIRGINIA

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WITH ever-increasing frequency and urgency, physicians and others who are concerned with hospital administration are voicing alarm over the apparent increase of infections due to *Staphylococcus aureus* among hospitalized patients and patients recently discharged from hospitals. Outbreaks are described of surgical wound infections, postoperative enterocolitis, staphylococcal pneumonia in debilitated patients, especially newborn infants, and mastitis in their mothers.

It has always been difficult to identify sources of infection and to follow the course of epidemics caused by *Staphylococcus aureus* because of the frequency of its occurrence in the general population. Forty to 60 per cent of patients and personnel in hospitals and an even higher percentage of normal hospital-born infants are nasal carriers, 15 to 30 per cent of normal persons have the organism in their feces, and 25 to 40 per cent have it on their skin.

With the advent of bacteriophage typing of *Staphylococcus aureus* it became apparent that the majority of serious infections were caused by a limited number of strains, among which phage type 80/81 has been most frequently implicated. Indeed, this strain has come to be referred to as the "epidemic" strain of *Staphylococcus aureus*. In addition to recognition of this widespread and virulent strain, the ability to type specific strains of staphylococci has made it possible to pinpoint sources of infection. This information permits removing only hazardous carriers from contact with patients in preference to indiscriminate exclusion of all carriers.

Although no special problem of staphylococcal infections had been recognized at the Clinical Center, the technic for phage typing was adopted in the Clinical Pathology Department in 1957 as a research tool and routine patient surveys started. It was immediately evident that the Clinical Center harbored the epidemic strain phage type 80/81, and we became interested in surveying its prevalence in other hospitals in this area, in addition to studying its ecology in our own.

METHOD OF STUDY

The identification of coagulase-positive *Staphylococcus aureus* in the Clinical Center was made with routine methods and materials. Recently isolated strains of coagulase-positive *Staphylococcus aureus* were obtained from the laboratories of 5 hospitals in the District of Columbia, 3 hospitals in Maryland, and 4 hospitals in Virginia between January 1957 and March 1958.† Only the coagulase-positive staphylococci are selected for phage typing because coagulase-negative strains are not lysed by the bacteriophages used. All coagulase-positive strains were phage typed with a battery of 28 phages.

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† We are grateful for the coöperation of the pathologists of these hospitals whose interest made this study possible.

Bacteriophages are virus particles that are capable of infecting bacteria and producing dissolution of the organism. The ability to infect and produce lysis of organisms is remarkably strain specific, and therein lies the epidemiologic usefulness of bacteriophage typing. The phages are propagated by inoculation of a liquid suspension of phage onto a growing culture of its specific host staphylococcus. The phage infects its host bacterium, multiplies within the organism, and rapidly increases the number of viral particles in the liquid suspension which is harvested. The approximate concentration of viral particles is determined by preparing decimal dilutions (from 1 to 10 to 1 to 1,000,000) of the suspension and inoculating a measured drop of each onto an agar plate growth of the host staphylococcus. Each viable phage particle produces a tiny clear area, described as a plaque, in the opaque sheet of growing bacteria. With increasing phage concentration the plaques are closer together and more numerous, finally showing confluent lysis with no visible growth of staphylococcus in the area where the phage suspension was applied. The lowest concentration that will produce confluent lysis of the standard host organism is selected as the routine test dose (RTD) for typing unknown staphylococci. For typing unknown *Staphylococcus aureus* isolates, an actively growing broth suspension of each bacterium is streaked onto a plate, and the RTD of each phage is dropped onto a designated area of the plate. The plate is incubated overnight at 30°C. Any phage that produces at least 50 plaques on the unknown staphylococcal growth is recorded and this constitutes the phage type or pattern of the organism. Some of the staphylococci are not lysed by any of the battery of phages, and are referred to as "nontypable RTD." Some staphylococci are lysed by many phages, e.g., 47, 54, 75, 77, and 83.

The method of propagation of phages was essentially that of Blair and Carr.[1] The phages were preserved by lyophilization[2] and titered immediately before use in the usual manner. The phages used were 3A, 3B, 3C, 6, 7, 29, 39, 42, 42B, 42D, 42E, 44A, 47, 47C, 52, 52A, 53, 54, 55, 70, 73, 75, 77, 79, 80, 81, 83 and 523.

RESULTS

The results from the 13 hospitals are listed in table 1. Hospitals are not designated by name because of the stigma attached to hospital infections in the minds of many. The 80/81 strain was found in 12 of the 13 hospitals. We have insufficient information to determine comparative attack rates in the various hospitals. Instead, comparison is made on the basis of staphylococcal isolates rather than cases of clinical infection.

In describing the source of specimens, "routine diagnostic" includes not only cultures from obviously infected patients but also nose, throat and skin cultures where one expects to encounter *Staphylococcus aureus* in a fairly high percentage unrelated to morbidity. "Surgical" specimens include only cultures clearly associated with morbidity, i.e., purulent discharges and sputum from cases of staphylococcal pneumonia.

The prevalence of the epidemic strain staphylococcus phage type 80/81 is expressed as a per cent of the cultures submitted by each hospital. No other single strain occurred in sufficient frequency to warrant separate discussion, and therefore all strains lysed at RTD other than strain 80/81 are designated "miscellaneous types." All strains that were not lysed by any of the bacteriophages used are charted as "nontypable RTD" and expressed as a per cent of the total isolates.

As indicated in table 1, the frequency of epidemic strain phage type 80/81 among hospitals submitting "routine diagnostic" cultures varied from 20 to 36 per cent and among those submitting "surgical" cultures from 32 to 58 per cent.

In hospital 1, 20 per cent of coagulase-positive *Staphylococcus aureus* isolates tested between January 1957 and March 1958 were the epidemic strain phage type 80/81. There was little concern among clinicians over the incidence of staphylococcal infections during this time.

Hospital 2 submitted a higher proportion of surgical cultures than hospital 1, although this is not indicated in table 1, and 28 per cent of the cultures were phage type 80/81. During this period members of the surgical staff expressed suspicion that postoperative wound infections had increased.

TABLE 1

Occurrence of Staphylococcus Aureus Phage Type 80/81 among Cultures Submitted by 13 Hospitals
From January 1957 to March 1958

Hospital Number	Location	Description of Specimens	Number of Cultures	Phage Type 80/81 *Per cent*	Miscellaneous Types *Per cent*	Nontypable RTD *Per cent*
1	Maryland	Routine diagnostic	952	20	36	44
2	Maryland	Routine diagnostic	181	28	41	30
3	Maryland	Surgical	46	37	30	33
4	Maryland	Surgical	68	32	46	22
5	D. C.	Routine pediatric	94	33	54	13
6	D. C.	Routine pediatric	39	36	41	23
7	D. C.	Surgical	24	58	25	17
8	D. C.	Routine diagnostic	28	32	25	43
9	D. C.	Throat swabs	32	3	41	56
10	Virginia	Routine (?)	39	33	46	21
11	Virginia	Surgical	6	83	17	0
12	Virginia	?	4	75	0	25
13	Virginia	Routine (?)	5	0	60	40
TOTAL			1,518	36	36	28

Staphylococcal strains submitted from hospitals 3 and 4 were all isolated from surgical infections, and the percentage of these that were phage type 80/81 was 37 and 32 per cent respectively. There was no apparent concern over the incidence of staphylococcal infections during this time.

Specimens from hospitals 5 and 6 were submitted after the pediatric staff in each hospital had observed an increase in pyogenic infections in newborn infants and personnel. The respective percentage of strains that were phage type 80/81 was 33 and 36.

Hospital 7 submitted only "surgical" cultures, and 58 per cent of these were phage type 80/81. Hospital 8 submitted "routine diagnostic" cultures of which 32 per cent were phage type 80/81. Personnel at neither hospital expressed concern over the incidence of infection.

The specimens from hospital 9 were isolated from children, both in hospital and dispensary. One hundred diphtheria suspects were screened with throat swabs and *Staphylococcus aureus* isolated from 32 of them. We have no clinical information on the children, but the cultures probably indicate a staphylococcal carrier state. Only 1 of the 32 staphylococci was phage type 80/81, and the child from whom it was isolated was in the hospital.

Many of the specimens from hospital 10 were not identified as to source, and phage type 80/81 represented 33 per cent of the total cultures. We had no indication from our contacts of any concern over the infection problem.

Hospitals 11, 12 and 13 indicate only the extremely high or low percentage of strain 80/81 which may be observed when only small numbers of cultures are submitted, and therefore these figures are meaningless.

In general, there was a greater predominance of strains of phage type 80/81 in those hospitals submitting cultures from infections than those hospitals in which some of the cultures were obtained from sources unrelated to infection.

DISCUSSION

From the above sampling of hospitals in the Virginia, District of Columbia and Maryland area it is evident that from January 1957 to March 1958 the only predominant single staphylococcal strain was phage type 80/81. This is not an unusual situation and is comparable to published reports from other parts of the United States and other countries. The preponderance of this strain among surgical isolates compared to isolates from well persons is also well documented in the literature. The high percentage of a miscellany of strains isolated from surgical infections makes it clear, however, that strains other than phage type 80/81 cannot be exonerated as causes of serious infection. Indeed, hospital epidemics do occur from strains other than phage type 80/81.

The literature on investigation of sources, routes of infection and attempts at control has become voluminous. Some have overemphasized single factors, such as improper handwashing or skin preparation prior to surgery, unsanitary floors, or air pollution. The problem is unfortunately not so simple.

There are 3 epidemiologic situations when a hospital epidemic occurs.[3] In the first, the epidemic is due to a single strain of staphylococcus and only 1 or 2 of the personnel are carriers of this strain. The physical environment of the hospital is not infested with the strain, and control of the carriers and infected patients terminates the epidemic. Unfortunately this situation is rare. In the second epidemiologic situation 1 or 2 strains cause the infections, and the strains are harbored by noninfected patients and personnel and the organisms can usually be isolated from the environment. In the third situation there are many strains that cause infections. These strains are widely harbored by patients and personnel and are easily isolated from the environment. The latter two are the common situations in general hospitals. Obviously we can indict no single factor in the usual hospital infection problem. The most successful programs of control systematically follow each patient from admission to discharge, consider in detail his total environment during this time, and attempt to prevent each avoidable contamination contact. Achieving such control should maintain a minimum level of infection. There is, however, no room for complacency. As a noted bacteriologist recently stated, "Just as we think we have solid floor to walk on again, a board we never suspected springs up and must be nailed down." Excellent discussions covering the problems of control are found in the articles by Blowers et al[4] and by Starkey.[5]

One factor mentioned in most of the literature but not adequately emphasized is education of personnel. The primary source of *Staphylococcus aureus* is the human body. It is necessary, therefore, not only to clean up the physical environment in the hospital but also to make everyone in the hospital acutely aware of his own potential as a vector of serious disease. To raise the "Staphylococcal I.Q." of the doctors and nurses is not enough; all hospital personnel, patients and their visitors must be included. A recent USPHS publication, "C.D.C. Training Program—Staphylococcal Disease"[6] outlines an educational program and lists the training films available. With continuing education and careful consideration of environmental defects, a minimal infection level should result. Phage typing of staphylococci can now be done by smaller bacteriology laboratories aided by the development of stable lyophilized bacteriophages which recently have become commercially available. With this epidemiologic tool hospitals should be able to define their epidemic strain or strains, evaluate the source of these organisms within the hospital, and apply this information toward effective control measures.

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ENZYMATIC TESTS IN LIVER DISEASE

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DURING THE PAST 10 years no less than 25 enzymatic tests have been introduced as diagnostic aids in hepatic disease.[1] Many of these tests have proven to be sensitive indicators of liver disease, but frequently several tests yield essentially similar information on the type and degree of liver involvement. The present survey is intended as a guide to those enzymatic test procedures which give the greatest amount of useful information with a high degree of accuracy and least duplication of effort.

Principles of Enzymatic Tests

It is not surprising that the liver, which has so many important roles in the body's metabolism, would synthesize and contain large numbers of enzymes. These enzymes are concerned with such diverse functions as protein synthesis, detoxification, carbohydrate metabolism, excretion of waste products, lipid metabolism, synthesis of blood coagulation factors, urea synthesis, and many other functions.

When the liver is acutely damaged as in infectious hepatitis, homologous serum hepatitis, or chemical intoxication, there is necrosis of the liver cells with a release of a great variety of enzymes and metabolic products into the blood stream. Those enzymes which can survive for a sufficient length of time in large enough amounts in the blood can then be measured and used as an index of liver-cell damage. If the excretory pathway is blocked as with common-duct stone or carcinoma of the pancreas there may be an accumulation of enzymes which are normally excreted in the bile or the process may stimulate the liver to an overproduction of certain enzymes. The level of these enzymes can be used as a guide in the diagnosis of obstructive hepatic disease. The liver also synthesizes enzymes which are used at distant sites. These enzymes often reflect the liver's ability to function adequately following either acute or chronic damage. Due to the liver's abundant reserve capacity, these tests are often relatively insensitive and become significantly altered only with severe or advanced disease.

The laboratory may be of valuable assistance in the 3 major problems of liver disease which most often confront the clinician. These are: first, presence or absence of obstructive disease; second, presence, extent and prognosis of acute hepatic damage; and last, evaluation of amount of functioning hepatic parenchyma. Each of these problems will be discussed with respect to the use of enzymatic laboratory tests as diagnostic aids. No attempt is made to discuss the use of any of the more than 50 nonenzymatic tests which are available as liver function tests and which should be used as needed for correlative evidence of hepatic disease. It should also be emphasized that often there is no sharp distinction between the 3 problems outlined above. If an obstructive disease is sufficiently prolonged it will result in necrosis of hepatic parenchymal cells and finally in a measurable loss of hepatic function.

Enzymatic Tests in Obstructive Disease of the Liver

In obstructive disease of the liver there are many cases in which the differential diagnosis cannot be easily resolved on the basis of the patient's clinical history and physical examination. The problem of painless jaundice in the older patient or the nonjaundiced patient with evidence of a "space-occupying" lesion of the liver, such as metastatic carcinoma, granulomas, abscesses, or cellular infiltrates, falls into the group of difficult diagnostic situations. It is in instances of this type that the clinical laboratory can be of most assistance.

Four enzymatic tests are available as diagnostic aids. These are alkaline phosphatase, 5-nucleotidase, aminotripeptidase and leucine aminopeptidase. Of these only the alkaline phosphatase, leucine aminopeptidase, and to a lesser extent 5-nucleotidase are generally available. These enzymes are markedly elevated in obstructive disease of the liver.

The alkaline phosphatase test has been used for over 25 years as a diagnostic test and remains the most useful, although not the most specific, test for obstructive disease of the liver. The term alkaline phosphatase refers to a group of enzymes which catalyzes the hydrolysis of esters of phosphoric acid at an alkaline pH. There is chromatographic and electrophoretic evidence of at least 2 and perhaps 3 major fractions of alkaline phosphatase activity which migrate with different protein fractions and which probably represent enzymes derived from different sources such as liver and bone. The partitioning of the alkaline phosphatase activity into liver and osseous fractions has not yet reached clinical application. It has long been assumed that the elevated level of alkaline phosphatase in obstructive disease of the liver was due to a failure of excretion of bile which has a high alkaline phosphatase activity. More recently, evidence indicates that a major portion of the elevated activity arises from increased production of this enzyme by ductal epithelial cells of the biliary tract.[2, 3, 4]

As already noted, the serum alkaline phosphatase becomes markedly elevated in obstructive disease of the liver. However, with a sudden complete obstruction to bile flow there is an initial small drop in this serum enzyme followed by a rise during the next few days to levels of 25 units or higher (normal value, 1 to 4 Bodansky units). Following relief of the obstruction, the alkaline phosphatase falls slowly to the normal range over a period of 1 or 2 weeks.

The alkaline phosphatase level is also markedly elevated in nonjaundiced patients with intrahepatic obstructive lesions.[5, 6] Levels of up to 100 Bodansky units have been reported in "space-occupying" lesions, which include metastatic carcinoma, granulomas, abscesses and some cellular infiltrates. The underlying mechanism for this elevation is presumed to be compression of intrahepatic bile ducts. The same mechanism may be responsible for the elevated levels of alkaline phosphatase seen in one phase of viral hepatitis. The alkaline phosphatase level is probably still the best test for metastatic disease in the liver. Chlorpromazine jaundice, which is due to plugging of the small bile canaliculi, results in elevated alkaline phosphatase levels in 98 per cent of such patients.[7] The level is usually not as high as in extrahepatic obstruction, but ranges of 7 to 42 Bodansky units have been reported.

The serum alkaline phosphatase may rise to levels comparable to those found in obstructive disease in primary diseases of the biliary tract such as biliary cirrhosis and cholangiolitic hepatitis.

The enzyme 5-nucleotidase is similar in many respects to alkaline phosphatase.[8, 9] This enzyme catalyzes the hydrolysis of nucleotides having a phosphate group on carbon-5 of the pentose. This enzyme is specifically elevated in liver disease, and thus its measurement has a definite advantage over the nonspecific alkaline phosphatase test. This is especially helpful when both liver and bone disease may be present, as often occurs in metastatic carcinoma, and although not widely used, it is a valuable addition to the battery of liver function tests.

Recently the enzyme, leucine aminopeptidase, has been utilized as an index of biliary obstruction. This enzyme is capable of hydrolyzing L-leucyl peptides. This test is less sensitive than either the alkaline phosphatase or the 5-nucleotidase in differentiating obstructive from hepatocellular jaundice and is most useful in the diagnosis of carcinoma of the head of the pancreas.[10] In 14 reported cases of carcinoma of the head of the pancreas the leucine aminopeptidase activity in all cases was markedly elevated to a mean value of 683 units with a range of 450 to 910 units (normal, 142 plus or minus 29 units for men and 130 plus or minus 27 units for women). The level was moderately increased to levels of 200 to 500 units in acute pancreatitis, common-duct stone, and diseases secondarily affecting the pancreas or biliary system.

In summary, in obstructive diseases of the liver, the serum levels of the enzymes alkaline phosphatase, 5-nucleotidase, and leucine aminopeptidase are markedly elevated. The alkaline phosphatase has the advantage of wide availability and high sensitivity. It suffers from the lack of specificity, especially in patients with primary or secondary bone disease. The enzyme 5-nucleotidase is sensitive and specific but is not generally available. Leucine aminopeptidase is rather insensitive to obstructive disease when compared to the alkaline phosphatase or 5-nucleotidase but finds its major application in the diagnosis of carcinoma of the pancreas where very high levels are reported.

Enzymatic Tests in Acute Liver Damage

The vast majority of enzymatic tests of liver function which have been introduced in recent years are useful chiefly as indices of acute cellular damage. Acute hepatic cellular damage is characteristic of such diseases as infectious hepatitis, homologous serum hepatitis, liver damage due to chemical poisons, including drug toxicity, and damage secondary to many nonhepatic diseases. The underlying mechanism for the production of high serum levels of these enzymes is the necrosis of large numbers of liver parenchymal cells and the release of their enzymatic contents into the blood stream. There is also evidence that in some instances increased production of an enzyme may be responsible for elevated serum values.

The specific enzymatic tests which have been reported as useful in acute cellular damage to the liver include a number related to carbohydrate metabolism, such as phosphohexose isomerase, aldolase, lactic dehydrogenase, malic dehydrogenase, fumarase, and isocitric dehydrogenase; others are concerned with amino acid or protein synthesis, such as the transaminases, arginase, ornithine carbamyl transferase, and the peptidases. The changes in serum levels of all these enzymes parallel one another, although for each some minor advantage has been claimed.

The transaminases may be considered as typical for the group. There are 2 transaminase systems which are useful diagnostic tools. One, glutamic oxalacetic transaminase (SGOT), catalyzes the transfer of an amino group from glutamic acid to oxalacetic acid with the production of a new amino acid and a new keto acid. The other, glutamic pyruvic transaminase (SGPT), catalyzes the transfer of an amino group from glutamic acid to pyruvic acid. The SGOT has the advantages of wide availability and usefulness in both hepatic and myocardial diseases. The SGPT has the advantage of being much more specific for liver disease. This makes the test especially useful in evaluating liver function in the presence of suspected cardiac disease.

In acute liver damage of infectious hepatitis, the SGOT is normal during the asymptomatic, pre-icteric phase which lasts from 24 to 30 days. During the symptomatic prodromal phase the SGOT level increases abruptly to a peak level of 400 to 4,000 units, which is 10 to 100 times the normal value (10 to 33 Karmen units). This peak usually slightly precedes the onset of jaundice. During the first week of jaundice the SGOT level maintains a plateau at an average of 1,200 units. The peak value is correlated with the degree of cellular damage but the correlation with prognosis is less apparent. It then gradually falls to normal levels over a period of 4 to 6 weeks. A prolonged recovery to a normal level is considered evidence of continuing active infection.

The most spectacular rise in SGOT occurs following the ingestion of hepatic toxins such as carbon tetrachloride. Levels of 27,000 units have been reported.[11] Another important use of the transaminase test today is as a guide to drug toxicity. This is especially true in large centers where chemotherapy programs are in progress. The SGOT and SGPT are the most sensitive index of early hepatic cellular damage and usually become significantly elevated before clinical signs of drug toxicity develop. The transaminase determination also is valuable in assessing hepatic injury secondary to nonhepatic diseases such as congestive failure, infectious mononucleosis, leukemia, storage diseases, acute pancreatitis, and anemia. Moderate elevations of 50 to 200 units are found in obstructive disease of the liver.

Except for one, the remaining enzymatic tests available as diagnostic aids in acute liver damage largely duplicate those discussed above and so do not add sufficient information to warrant their inclusion in the battery of liver function tests. Lactic dehydrogenase acts somewhat differently than the other enzymes, and, in addition to its usefulness as an index of acute cellular necrosis, this test has been reported useful as an indicator of metastatic liver disease.[1, 12]

In summary, there are a large number of enzymatic tests which are available as indicators of acute liver damage. The transminases are probably the most sensitive of the enzymatic tests and most widely available. The SGOT is useful in both myocardial and hepatic disease. The SGPT is more specific for liver disease and can be of value in determining the origin of an elevated transaminase activity.

EVALUATION OF FUNCTIONING HEPATIC PARENCHYMA

The enzymatic tests are of only limited value for the evaluation of functioning hepatic parenchyma. The basic difficulty is measuring an early or minor impairment of function in an organ which has a many fold reserve capacity. Cholinesterase has been reported[13, 14] as a test of liver function, but the results are unconvincing, and the test offers little advantage over the simpler nonenzymatic procedures. The best approach to this problem still appears to be the dye excretion methods such as bromsulfalein or rose bengal. These tests circumvent the liver's great reserve capacity by injecting the maximum amount of dye a normal liver can excrete. By injecting the dye on a body weight basis, the percentage excretion may be related to liver function.

LABORATORY ASPECTS OF ENZYMATIC TESTS

Despite the recent introduction of a large number of enzymatic tests, only 5 or 6 are widely used, mainly due to the duplication of information obtained. However, it is highly probable that as the enzymatic basis of normal metabolism, disease processes, and drug action become better understood, more specific enzymatic tests of clinical value will be developed and demanded from the laboratory.

The measurement of enzymes presents the laboratory with some very special problems which are in turn reflected in the accuracy and availability to the clinician. Enzymes are catalysts in chemical reactions, and their analysis requires the measurement of rates of reaction. This necessitates handling the tests as individual procedures, and therefore these tests are more time-consuming than conventional tests. Fortunately, this type of timed test is especially well suited for the automatic instruments which are rapidly becoming a part of the laboratory's tools.

The reagents used in enzymatic test procedures frequently include other unstable enzymes and organic compounds. Often these must be freshly prepared every day, a time-consuming procedure. The instruments necessary for measurement are expensive.

In view of these limitations and the restricted capacity of most hospital laboratories, wise selection among the many and increasing variety of tests will continue to be a daily problem for the clinician.

CONCLUSIONS

The serum levels of the transaminases are a reliable and sensitive index of acute hepato-

(*Continued on page 256*)

President's Page

TAXES AND THE DOCTOR

The hope that Congress would come to grips this year with the problem of Federal taxes seems doomed to disappointment because of the anticipated short session of the Congress. A general revision of the Internal Revenue Code is contemplated sometime in the future, however. The need for revision of the tax structure in order to correct the many inequities which exist is long overdue. The problem is admittedly complex and will no doubt require long and careful study. The revenue needs of the Federal Government are growing yearly and no change in this trend can be realistically anticipated. Efforts to broaden the tax base must be encouraged in order to maintain adequate tax revenues while obvious inequities are corrected. The graduated income tax rates are almost confiscatory above certain levels of earned income. In this regard the self-employed professional individual fares no better or worse than the corporate employee. The latter, however, enjoys the tax shelter of company pension plans. This is not available to the self-employed at the present time. To correct this particular inequity the House of Representatives approved the Jenkins-Keogh Bill in 1959. It is to be hoped that the Senate will now pass this legislation and that it will be approved by the President. This will provide a deserved measure of relief by exempting from taxation a percentage of earned income. The funds thus exempted would be invested in approved pension plans for each individual. The income derived from these pension funds would become taxable only when received by the individual after retirement at the probable lower rate of income tax applicable at that time.

Not only has the Federal Income Tax become more burdensome over the years, but local and state taxes have in many cases increased in even greater proportion. Physicians in the Metropolitan Area are well aware of the marked increases already effected in Real Estate and Income Taxes, and now the District Commissioners have recommended to the Congress further upward revisions of real estate and other taxes. The most unfair of the new proposals is the Unincorporated Business Franchise Tax. Income derived from services, as in the case of physicians, lawyers, dentists, or architects, would be taxable just as income derived from a "business." The blow falls particularly hard on the doctors who have offices in the District but live in the suburbs in Maryland and Virginia. Most of these men are members of the Medical Society. The Executive Board went on record against this tax in November. Dr. W. LeRoy Dunn, then President of the Society, stated the case clearly in a letter to the Commissioners, calling the tax "inequitable and unrealistic." We can only hope that the members of the House District Committee will weigh carefully the probable ong-term harmful effect which this tax could produce and disapprove this particular proposal.

Victor R. Alfaro.

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Editorials

SHOW WINDOW OPERATION

Health Insurance for Federal Employees

In public affairs today most people have come to associate with a good result any organized effort which can be classified as biggest or most costly, open to public inspection, democratically designed, and competitive under a system of free choice enterprise.

Under the law which requires a program of voluntary health insurance for Federal employees to become effective July 1, 1960, nearly 5 million of our people will be included at a cost yearly measured by a 9 digit number. Every aspect will be publicly inspected at the operating level of the Civil Service Commission and doubly checked in the detailed reports to Congress and the audits of the General Accounting Office.

All standard carriers of health insurance are

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of the Medical Society of the District of Columbia

entitled to qualify under this law, while the choice is so utterly free that each eligible Federal employee will be able to make the individual free choice of the type of program he will enter.

By now there must be general knowledge among our physicians of the benefit structure available under this program as it has been publicized especially to Federal employees. By now, also, something of the full significance of this program in our voluntary system is emerging to general understanding.

Consideration of these matters must lead to important decisions on professional attitude toward the program. Proper choices by us of the steps in our own course have an importance even beyond that referable alone to size and cost of the program. The example here is one which will be bound to spread into other areas, notably those inhabited by state and local governmental employees. And, further, the response of physicians to many of the special demands under this program will create precedents of far-reaching effect.

Happily, it has been possible to retain in the Blue Shield part of the program the major elements of local autonomy as embodied in local fee schedules and income levels. Unhappily, it has been necessary to produce some squeezing one way or the other of the pattern of benefits to achieve "Government-wide" uniformity. Even more unhappily, the "Government-wide" requirement in the law has produced a composite rating system which contains inequity and the seeds of inflation.

In the D. C. area physicians will treat those patients who elect to be covered by the Blue Cross-Blue Shield high level offering under essentially the same terms as they do now. The principal deviation from the Surgical-Medical contract will be the transfer of diagnostic services outside the hospital to the Major Medical segment of the program. The necessity for national uniformity in scope of benefits has caused this change. The cost of this service everywhere plus the difficulties of administration of such a program nearly everywhere have been the determining factors.

The most notable addition to the program above benefits now available here will be the supplementation of Major Medical benefits to both the high and the low level segments of basic benefit. The biggest challenge to the medical profession will be to design controls which will permit Major Medical payments which are fair but are not inflationary.

The greatest hazard of this entire gigantic addition to our voluntary prepayment system will be the task imposed upon the profession not only to help operate prepayment fairly but to build a record which can be objectively evaluated to prove that the fair costs of medical care have not been inflated to unfair levels. The most effective mechanism and perhaps the only one for achieving this purpose is the Doctors' Blue Shield.

Donald Stubbs, M.D.
Chairman of the Board,
National Blue Shield

PITFALLS IN DISASTER PREPAREDNESS

A catastrophe of any magnitude in the Washington Metropolitan Area would, in present circumstances, be nothing short of disastrous. This would be especially true from a health standpoint because little has been done to organize medical services in a manner adequate to cope with such a situation.

A cursory investigation of the various organizations concerned with medical services in the event of a disaster reveals that hospitals, Civil Defense, Police and Fire Departments, Red Cross, and the Salvation Army are organized to a certain extent. Disaster efforts of these groups have not been coördinated, with the exception of Civil Defense, the military, and Police Departments.

Some years ago the District Medical Society organized what is called the Medical Emergency Disaster Service, composed of some 45 volunteer physicians who have agreed to respond in an emergency. Unfortunately, the existence of this service, which for convenience has been designated MEDS, is not too well known to other agencies throughout the Metropolitan Area, nor has a means of alerting them in the event of disaster been developed to the extent it should be. For example, during 1959 Civil Defense conducted what was known as Operation Alert, during which I learned that no means existed to alert or mobilize the civilian physicians of MEDS.

There are, of course, many unanswered questions in the emergency medical field in the District. For example, what will be the role of the private practitioner in a community-wide disaster? Does he report to one of the several hospitals where he has a staff assignment or does he report to the local military unit if he is an active Reserve Officer? Where does he go and what does he do if he is a member of the Society's Medical Emergency Disaster Service as well as an officer in the Army or Navy? From whom does he take orders? Where does he get his information? Where will his supplies come from? As in some civic disasters in the past, will he merely wander into the disaster scene with his bag in hand, doing what he can?

Because there are no specific answers to these questions at the present time, the role of MEDS becomes vitally important to the community. It is essential that the medical profession generally know how it functions. Each physician participating in MEDS has been issued an emergency medical kit to be carried in the trunk of his automobile, which contains medical supplies to treat approximately 20 injured persons. MEDS has engaged in several practice alerts, physicians listed with the Service being dispatched to the designated rendezvous Disaster Hospital located at 13th and Upshur Streets, N. W. At one practice alert 44 doctors were alerted, of which 34 arrived at the rendezvous hospital within 10 minutes.

Obviously, this group forms only a nucleus of what the medical disaster organization should be. However, it is evidence that the Society is leading the way toward the development of an adequate emergency program. It is to be hoped that other organizations will join with the Society in the effort to develop more effectively emergency medical plans and coördinate existing disaster plans.

JAMES E. CHAPMAN, M.D.
Chairman, Committee on
Emergency Medical Service

NEW PSYCHIATRIC SERVICE

One of the most spectacular developments in the mental health field during the last 5 to 10 years has been the emphasis on progressive medical care and the therapeutic community. Such facilities established elsewhere regularly include a unit variously designated as a "Day-Night Care Center," "Half-way House," "Convalescent Service," "Dual Purpose Treatment Center," varying to be sure to meet local needs, but all providing individual programs for patients too sick to return to full independence in the community without convalescent care.

The D. C. General Hospital is developing a Psychiatric Convalescent Service to provide an inclusive, interim, medical and sociovocational rehabilitation program for mental patients, alcoholics, and narcotic addicts under overall medical supervision. Included will be certain patients with physical medical needs suitable for treatment in this program.

This facility will provide for a group of patients not sick enough to be committed but who would become sick again if discharged immediately without attention to the socio-

PARTICIPANTS IN FINAL SESSION OF MIDWINTER SEMINAR

The third session of the NINTH MIDWINTER SEMINAR, sponsored by the Medical Society of the District of Columbia, was held in the Medical Society's auditorium, February 24, with DR. PETRENA ABBE SHEA (center above), Second Vice President of the Society, presiding. The subject for the final session, which was co-sponsored by the Washington Heart Association, was "Recent Advances in the Uses of Cardiac Drugs and Diuretics."

Out-of-town panelists were (left to right): DR. E. HUGH LUCKEY, Professor of Medicine, Cornell University Medical College, who was moderator; DR. WILLIAM B. SCHWARTZ, Professor of Medicine, Tufts University School of Medicine; and DR. JOHN S. LADUE, Associate Professor of Clinical Medicine, also from Cornell University. From Dr. Shea (left to right) are: DR. W. PROCTOR HARVEY, Associate Professor of Medicine, Georgetown University School of Medicine, and DR. JOHN M. EVANS, Associate Professor of Medicine, George Washington University School of Medicine, panelists from Washington, and DR. THOMAS W. MATTINGLY, Chairman of the Postgraduate Education Subcommittee on the MIDWINTER SEMINAR, who was responsible for the notable success of these postgraduate meetings.

environmental factors which precipitated their illness. The patients in this group will be permitted to leave the hospital for periods of time which will be gradually increased until they are on night or day care only—a graduated release. Treatment of narcotic addicts in the Psychiatric Convalescent Service will be restricted to those who have completed initial treatment on the acute Psychiatric Service. Follow-up will be done in a clinic setting offering comprehensive services tailored to the needs of the individual. Alcoholics, who now receive largely "drying out" treatment only, will be transferred selectively to the new Service for further treatment and rehabilitation. Anticipated follow-up will be largely by the Alcoholic Rehabilitation Clinic. It is hoped that this will be more than a token approach to the management of the estimated 50,000 alcoholics in the District of Columbia. The majority of long-term medical rehabilitation cases will now be cared for on the recently established D. C. General Hospital Paraplegic Service or in the Continued Treatment Program recently developed, utilizing beds at Glenn Dale Hospital. Some of these patients will be suitable for care on the Psychiatric Convalescent Service.

The treatment approach cannot be described here in detail but will include vocational and social rehabilitation with individual psychotherapy, group therapy and social group work, with emphasis on the team approach and patient government. Utilization of existing community resources is an integral part of the program. The Service will have 180 beds, approximately 85 beds for alcoholics, 50 for "mental" cases, 35 for narcotic addicts, and 10 for other medical problems. Obviously, this bed utilization pattern will vary with experience.

In summation, this new program will provide a planned return to the community of mental patients, alcoholics and narcotic addicts, thereby making it possible for these patients to make an easier adjustment to normal activities.

JOHN D. SCHULTZ, M.D.
Medical Director, D. C. General Hospital

In and Out of Focus

BY THE OBSERVER

"There's a Revolution..."

For many years the phrase "medicine at the crossroads" was commonly used by physicians when writing and speaking about socioeconomic conditions in medicine. When this phrase had run its course, "medicine in a changing world" became popular. The AMA's Communications Division has now come up with "revolution" as descriptive of the current situation confronting the medical profession.

Addressing itself to physicians throughout the country, the AMA publication, *The PR Doctor*, editorialized:

"There's a revolution going on in your own backyard—a revolution that within 10 years could alter your whole life, determine how you practice medicine, and dictate the way you care for your patients.

"The crisis will come in the '60s, perhaps within a matter of months. The decision to be made is this: Who will take the leadership in solving medical and health problems?

"This is no case of the 'good guys' vs. the 'bad guys.' It is a case of Americans looking for the best way to provide medical care for everyone. The goals on each 'side' are the same—the mechanisms for achieving them differ.

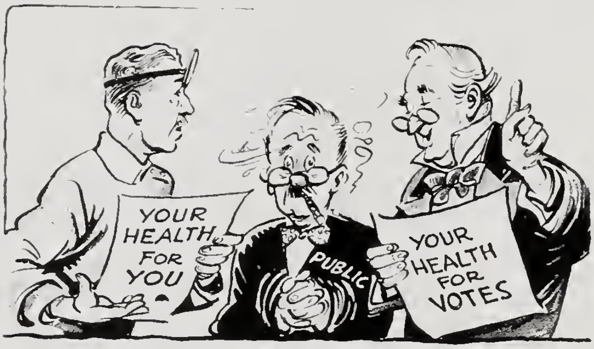
"The whole revolution stems from a growing feeling that suitable medical care is not only important, it is a right to which everyone, regardless of his financial status, is entitled."[1]

PR then proceeds to describe what it believes to be the reaction of most physicians to this situation:

"No doctor of medicine would quibble with the objective. Traditionally individual MDs and medical organizations have labored to care for the indigent as well as the paying patient.

"The doctor, however, disagrees that a 'right' implies a Government handout in all cases. He would question the growing hue and cry that problems related to medical care are so acute that the Government must step in to solve them. In the first place, he would like some evidence to show that these problems really exist since he hasn't been able to document them in his own experience. In the second place, he knows the Government is less qualified than the medical profession to tackle the job. Above all, he bitterly resents the fact that politicians use medical care as a stepping stone to political success.

"Yet people are increasingly willing to let the Government assume the responsibility for health affairs. For though they bear no grudge against medical organizations, a lot of Americans feel physicians are losing this leadership by default."



Medication vs. Legislation

How has this situation come about? PR states it is due to failure of physicians to communicate to patients "understandingly and understandably" about their illnesses; to do the same with respect to their fees and medical costs; to maintain a personal and warm relationship with patients; to tell the story about medicine's accomplishments; and to make people aware of the medical profession's real interest in the indigent, aged and economically stricken.

Proposed is a "counter-revolutionary" approach which would include the following:

—Make available more refresher courses to physicians.

---

[1] Communications Division, AMA: The Sixties—decade for decision. The PR Doctor, February, 1960.

—Develop more effective ways of communicating with the people.

—Establish more orientation courses on non-scientific medical subjects for physicians.

—Make courses in the above subjects available in medical schools.

—Give "all-out" support to the AMA's positive policy with respect to the recruitment of more young people for careers in medicine.

—Urge upon the medical profession "renewed attention" to the conduct of efficient round-the-clock emergency call services.

—Stress the importance of having a family doctor

—Make certain grievance committees are functioning effectively.

—Reduce "service" complaints by improved efficiency in the doctor's office.

—Promote "medicine's traditional guarantee to provide medical care for all regardless of ability to pay . . ."

—Develop relative value scales as recommended by the AMA's House of Delegates "among [medical] societies interested in this aspect of cost."

—Promote wider voluntary health insurance coverage.

—Urge greater participation by physicians in community affairs.

It is quite apparent that the AMA will make an all-out effort to cope with the "revolution." Obviously, the effectivenes of its program will depend upon the extent to which state and county medical societies coöperate.

All medical societies have problems peculiar to their areas. The situation in the District of Columbia is decidedly different from that which exists in any other part of the country. Approximately one-half the population is employed by the Federal Government. The enactment of the Health Benefits Act for these workers, passed by the Congress last September, will therefore have a profound effect upon medical practice in the Washington Metropolitan Area.

The Act, which will become effective July 1, 1960, entitles workers to Federal assistance in purchasing medical care. It guarantees them a choice of 4 types of hospital and medical care programs: 1) a service benefit plan (Blue Cross-Blue Shield); 2) an indemnity plan (underwritten by an insurance company); 3) an employee organization plan (of which a considerable number have been set up by Federal employee organizations); 4) a comprehensive "closed panel" plan (such as the Kaiser Health Plan or H. I. P.) where such programs exist.

The following statement was recently issued by Blue Shield Medical Care Plans, Inc. in anticipation of the Act becoming effective:

> "The significance of the Federal Employee Health Benefits Act for the future of American medicine can scarcely be exaggerated. Under the terms of this Act, our Government will contribute toward the cost of a hospital and medical care coverage program for all Federal employees. Thus, the Government as an employer assumes a direct interest in, and responsibility for, the health care of its career servants.
>
> "Moreover, the Government may be expected to scrutinize the effectiveness of the coverage provided in order to assess the capacity of our voluntary programs to function in an acceptable fashion in meeting the public's need for "prepaid" health services. Thus, our voluntary system of prepayment as well as those dedicated to the support of those programs may be said to be on trial. And if our physician-sponsored programs serve creditably and satisfactorily, the medical profession through its own prepayment plans will have struck a mighty blow for the future of free enterprise and the private practice of medicine."

★

Buried Treasure Numerous surveys of health facilities in the District of Columbia have been made in the last quarter of a century. Most of the reports setting forth findings and recommendations in these investigations have long since been forgotten. Unless they are resurrected, which seems unlikely, they will continue to gather dust.

Within your Observer's recollection there have been 3 surveys in which he has had an assignment. One of the most ambitious was that conducted by the now defunct Health Council of the Washington Metropolitan Area in 1946 at a cost of some $25,000. Three eminent surveyors from outside the city were employed to supervise the project. They spent months in evaluating local facilities and at the finish had several recommendations to make which the Council agreed would contribute to better health conditions in the District.

Dr. Herbert P. Ramsey, first Chairman of the Council, was tireless in his efforts to bring the study to a successful conclusion. Following the Council's final report he was succeeded as chairman by the late Dr. Ross T. McIntire. It soon became apparent that for one reason or another, the fate of this survey would be similiar to that of others which had preceded it.

Upon being interrogated on the subject, Dr. Ramsey stated that some of the recommendations in the Council's report were carried out. A number of others were not implemented, which he attributed to the fact that "people in the District of Columbia have no vote. This contributes to an apathy which is difficult to surmount." Undoubtedly there is much truth in this statement.

The most recent study of the health situation in the District was that conducted in 1953 by the Director of Health with the assistance of an advisory committee consisting of representatives of the Public Health Service, the Medical Society of the District of Columbia, the American Association of Medical Social Workers, the United Community Services, the D. C. Tuberculosis Association, District of Columbia Cancer Society, the Medico-Chirurgical Society of D. C., the Washington Board of Trade, the Board of Public Welfare, and representatives of local hospitals and other organizations.

Some 150 professional and lay people served on 14 committees. The Executive Committee which supervised their activities was tireless in its efforts to bring the survey to a successful conclusion and to implement the recommendations of the various committees. However, this was not to be because "politics raised its ugly head." The difficulty arose over the recommendation that a board of health be established to supervise the conduct of the Health Department. Seldom has a proposal generated more heat than this one. Eventually differences arose within the Executive Committee, which originally had unanimously voted to approve the recommendation.

Many of the other recommendations contained in the report were vitally important to the health of the people in the District. It is to be deeply regretted that the final report now gathers dust and is all but forgotten. It is perhaps a vain hope that the "treasure" which this report contains will not remain buried indefinitely.

Another and more ambitious survey has just been completed by the Council on Rehabilitation of the Medical Society of the District of Columbia in coöperation with the Metropolitan Medical Societies of Maryland and Virginia. This study is a result of about 3½ years of effort. It contains invaluable information and a number of vitally important recommendations. Dr. Preston A. McLendon was Chairman of the Council during the entire period the study was in progress and gave unstintingly of his time.

The project was underwritten by the Office of Vocational Rehabilitation, Department of Health, Education, and Welfare, and is unique in that it is the first study of its kind undertaken by medical organizations in coöperation with the Government.

The voluminous report, which has just been published, is attracting national attention. In fact, there are indications that organizations throughout the country are deeply interested in its findings and recommendations.

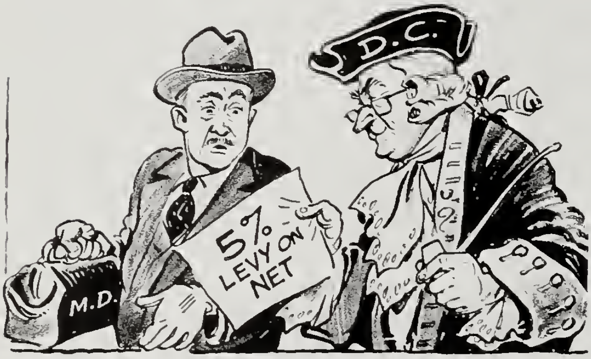
Shortly a condensed summary of the Council's report, including general observations and recommendations, will be forwarded to members of the Society. It is hoped that it will be carefully read and that support will be given the recommendations submitted by the Executive Board when it has had an opportunity to study the unabridged report thoroughly.

Let this not be another buried treasure.

More Taxes? One of the participants in a recent panel discussion on "The Significance of Current Medical Economic Problems"* was Mr. John C. Post, President of Professional Business Management, Inc. of Washington, D.C. Mr. Post's discussion was devoted largely to the proposed increase in District taxes, especially as they would affect physicians.

In his opening remarks, Mr. Post said.:

> "It has long been an ambition of mine, come January of next year, to think of prospective tax legislation and to be an optimist. But this is January, 1960. If anyone in professional life in the District of Columbia can find cheer in his tax outlook this year, he would have to practice a philosophy which is immune to attacks on his pocketbook.



Prescription for Buck-ache

> "The word 'tax' is derived from the Latin 'taxus' which translated means 'to strike sharply.' After you have been made fully aware of the effects of this year's tax legislation, some of you are going to feel that in the year 1960 'to strike sharply' translated means 'a big kick in the pants.'
>
> "The kicker this year, however, will not be your Uncle Sam. Lame from the punishment he has inflicted in the past, he is taking a rest in 1960. In fact, there are some who believe that he will distribute salve by enacting the Keogh Bill, which would allow doctors to escape immediate tax on certain of their income, provided it is filed in escrow, to be taxed years later at a lower rate. (I, for one, predict that the Keogh Bill after this Congress adjourns will again be only a Monday morning hangover, as it has been after each of these past 8 sessions.)
>
> "Already you have adjusted yourself to the stepped-up Social Security tax, effective this January 1. That is the major Federal tax boost for this year. It is Father Washington who, as I have said, will most upset you District physicians before the year is over."

What Mr. Post is talking about, of course, is a District bill which would not only increase real estate and income taxes but would include one which has not been levied before. This is the Unincorporated Business Tax which, it is proposed, shall be levied on all individuals previously exempt who render personal services. Before these comments appear this legislation will undoubtedly have been introduced in the Congress with the endorsement of the District Commissioners.

In criticizing the proposed tax, Mr. Post said:

> "The most discriminating part of the program, however, is the special 5 per cent levy on [the physician's] net professional income, to be obtained by eliminating the existing personal service exemption for earnings of an unincorporated business or profession. If you *earn*, and *live* in the District you will squirm.
>
> "If you practice in the District but reside in the Metropolitan Area of Maryland or Virginia, you will really sweat. . . . This is exactly what is intended, for the District Commissioners have long itched to strike sharply at those who use District facilities by day but scatter to the four points of the compass for their night's repose, thus in effect escaping tax in the jurisdiction where they pass conscious hours, and paying instead where they are generally unconscious. The Commissioners feel that such a tax would be fair. How do you feel?" (See table 1.)

Dr. W. LeRoy Dunn, President of the Society last year, answered this question when he wrote Commissioner Robert E. McLaughlin that the Executive Board, speaking for the Society, vigorously opposed the contemplated tax on personal services of professional people as being "inequitable and unrealistic." In the Board's opinion, the President stated, it would "discourage nonresident physicians who are practicing in the District of Columbia, thereby encouraging them to relocate their offices in suburban areas (outside the District)." Furthermore, he stated that the tax would not resolve the problem of obtaining cash funds to operate the District's essential departments because "it is not in conformity with the desirable 'pay as you go' tax program now in operation."

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* Presented at the Annual Banquet Meeting of the Medical Society's Section on General Practice and the D. C. Chapter of the American Academy of General Practice, January 26, 1960.

Subsequently the Board referred this matter to the Society's Committee on Public Policy with the suggestion that other professional organizations be contacted with a view of obtaining their support. This was done with very satisfactory results, there being a unanimity of opinion with respect to the stand which should be taken.

TABLE 1

Proposed Unincorporated Business Tax

(All calculations are computed for a doctor, married, with two children, whose income is derived entirely from professional practice)

Income	D. C. Doctor with D. C. Residence		D. C. Doctor with Maryland Residence		D. C. Doctor with Virginia Residence	
	Present Income Tax (D.C.)	Proposed Income and U.B.* Tax	Present Income Tax (Md.)	Proposed Income and U.B. Tax	Present Income Tax (Va.)	Proposed Income and U.B. Tax
$15,000	$310.00	$457.00	$339.00	$678.50	$475.00	$807.50
25,000	699.50	920.00	639.00	1,366.50	975.00	1,687.50
35,000	1,175.00	1,400.00	939.00	2,054.50	1,475.00	2,567.50

* Unincorporated Business tax

The Committee on Public Policy, under the chairmanship of Dr. J. Spencer Dryden, is under way with its plan to vigorously oppose the new tax legislation. Before these lines appear, Active and Life members of the Society will have received a letter from Dr. Dryden together with a questionnaire in which the following questions are asked: (1) How many years have you practiced in the District of Columbia? (2) What percentage of your patients live outside the District? (3) Have you at any time considered moving your office to the suburban areas outside the District? (4) Would the imposition of this tax cause you to consider establishing an office in the suburban areas outside the District?

Dr. Dryden feels that Congress will be reluctant to enact the new tax bill if they are made cognizant of the facts. Hearings have not been scheduled at the time this is written but the Society will be adequately represented at them by Dr. Dryden, and, if necessary, its officers.

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Our Civic Duty

"The more we neglect civic and political opportunities the worse things appear to get. Government moves away from the private enterprise system and traditional freedoms and moves more and more to bureaucracy, statism and conformity . . . spending and taxes rise . . . the caliber of political candidates sinks . . . crime and delinquency increase . . . alcoholism and narcotic addiction gain steadily . . . church influence decreases . . . and the false values of material living are glamorized and revered."

"Well, what are we going to do about it?

"I believe that it is high time a good many of us start acting like first-class citizens. Certainly we must continue to be first-rate physicians, but this does not give us any passport into the ranks of second-rate citizenship.

"Our professional service to humanity does not relieve us of social and civic responsibilities. We must still do our duty as citizens just as we do our duty as physicians."*

Thus did Dr. Louis M. Orr, President of the American Medical Association, seek to impress upon his colleagues the importance of their civic duties.

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* From an address, "The Physician in the Community," delivered before the Duval County Medical Society in Jacksonville, Florida, October 7, 1958.

Medical historians like to remind us that there were "giants" in the medical profession in former times who were also leaders in public affairs. They point to the beginnings of our country when physicians such as Dr. Benjamin Rush played a very important part in the birth of our Nation; to the number of physicians who subsequently held high public office; and to the apathy that has characterized the modern physician whas civic activities are concerned.

What started your Observer thinking about all this was not only Dr. Orr's remarks but editorials and news items which have recently appeared in *The AMA News*. The *News* not long ago editorialized on the civic responsibilities of physicians as follows: "The medical profession has come to realize that its obligations for health and welfare extend far beyond the medical office and hospital into the community itself. Today the concept of health is so broad that it encompasses housing, nutrition, recreation, working conditions—the whole environment of daily life."

The *News* illustrated what it meant by running a series of news items describing physicians' activities in public affairs. For example, there was Dr. Robert A. Buchanan, of Huron, South Dakota, who, in addition to being President of the South Dakota State Medical Association, is President of Huron's Board of Education, Trustee of Huron College, and a member of the city's Recreation Board. At one time he was Mayor of Huron and the President of its Chamber of Commerce.

The *News* also related that the Fulton County Medical Society in Atlanta, Georgia, had reported that 360, or 43.4 per cent, of its membership were engaged in one or more types of citizenship activities. A breakdown showed the number who took part in church work, service and civic clubs, parent-teacher groups, youth groups, boys' and girls' work, Community Chest, American Red Cross, and Chamber of Commerce.

Although no survey has been made by the District Medical Society to determine just how many members are active in civic affairs, it required little effort to ascertain that a number of them are playing very important roles in the community. The following are those known to the Society:

Dr. Preston A. McLendon, member of the District's Board of Education

Dr. Oscar B. Hunter, Jr., member, Board of Directors, Washington Board of Trade

Drs. Daniel L. Finucane and C. Herbert Marshall, delegates to, and Drs. Preston A. McLendon and Reginald S. Lourie, program participants in, the 1960 White House Conference on Children and Youth, and also members of the District Commissioners' Youth Council

Dr. Jack Kleh, General Chairman, and Drs. Andrew G. Prandoni, Henry H. Lichtenberg, Elbert T. Phelps, Thomas E. Griffin, Clifton R. Gruver, Stewart W. Bush, Paul B. Cornely, Daniel L. Finucane and Josephine J. Buchanan, members, D. C. Council on Aging

Dr. J. Ross Veal, National Councilor, United States Chamber of Commerce

Dr. Herbert P. Ramsey, Chairman, and Drs. Josephine J. Buchanan, William P. Herbst, Jr., and Jesse A. Keene, members, Hospital Advisory Council to D. C. Commissioners

Dr. Maurice A. Selinger, Chairman, Physicians' Advisory Committee to Selective Service

Dr. Allen S. Cross, member, Urban Renewal Council

Dr. James C. Sites, member, Committee on Regulations of Placement of Children in Family Homes

Dr. William P. Herbst, Chairman, Medical Advisory Committee to Department ot Health

Dr. W. Montague Cobb, member, Advisory Council to Department of Public Health

Dr. W. LeRoy Dunn, member, American Bar Association's Special Committee for Improving the Administration of Justice in the District of Columbia

Drs. Clifton R. Gruver, Paul B. Cornely, W. Montague Cobb, Richard H. Todd, members, Health and Welfare Council of National Capital Area

Drs. Harry S. Douglas and Josephine E. Renshaw, members, Advisory Committee to the League for Nursing, D. C.

Drs. A. Magruder MacDonald, Howard P. Parker, Ralph D. Whitley, O. Hugh Fulcher, members, Board of Trustees, Group Hospitalization, Inc.

Drs. William H. Beard, C. Willard Camalier, Jr., Oscar B. Hunter, Jr., Margaret M. Nicholson, and Frank S. Pellegrini, corporate members, Hospital Service Agency

Drs. Henry L. Darner, C. Willard Camalier, Jr., Edgar M. McPeak, James A. Dusbabek, Henry D. Ecker, Frank S. Pellegrini, Leonard T. Peterson, and Donald Stubbs (Chairman, Board of Directors, Blue Shield Medical Care Plans, Inc.), members, Board of Trustees, Medical Service of the District of Columbia

Despite the incompleteness of the above list, it is evident that far from being indifferent to their civic responsibilities, a large number of physicians in the District of Columbia are assuming their full share of responsibilities. It would appear that the "giants" of other days are still with us.

★

Federal Aid—Not Control

Several medical news publications have made their appearance in the past 2 or 3 years. Most familiar are 2 published by pharmaceutical companies—*Scope* and *Medical News*. Another newcomer is *The AMA News*. The most recent publication of this type, patterned after *Time* and *Newsweek*, has been named *Medical World News*. The Editor of *MW News*, the pilot issue of which came off the press the latter part of January, is Dr. Morris Fishbein. On the Editorial Advisory Board are Drs. Harold S. Diehl, Frank L. Horsfall, Jr., Chester S. Keefer, Irvine H. Page, Howard A. Rusk, and Theodore R. Van Dellen.

In your Observer's opinion, the initial issue was impressive because of the apparent intent to present medical news in a brief, objective and forthright manner. This was especially apparent in an editorial by Dr. Fishbein on the Forand Bill.

Writing in a detached manner (quite foreign to him when he was Editor of the JAMA), he states that the opposition of the Association to the Forand Bill is based on the fact that "it would add a larger and growing slice to that portion of the medical-care pie labeled Government medicine."

He states further that the AMA's position is based on the exorbitant cost to the taxpayer if this legislation were enacted, estimating it would soon reach 2 billion dollars annually. Also, that it would place impossible demands for beds in hospitals and nursing homes. And, finally, that the bill's enactment would be "an invasion of the physician-patient relationship beyond anything ever contemplated in the United States."

Representative Aime J. Forand's response to these criticisms is that his legislation "deals simply with financing health care and would not affect its nature." This, Dr. Fishbein observes, is "so naïve as to cast doubt on his understanding of any medical problems." He also takes issue with Rep. Forand's statement that his plan would not hurt insurance companies, Blue Cross, Blue Shield, or the hospitals, but "would relieve them from being financially responsible for that segment of the population—the aged—which costs insurance companies the most to cover." "Here," Dr. Fishbein says, "[Rep. Forand] misses the whole point of insurance: the greater the spread, the lower the cost."

Dr. Fishbein somewhat surprisingly concludes:

> "If the Forand Bill is a bad bill, as the American Medical Association, the American Hospital Association and many other organizations are convinced, neither Secretary Flemming nor anyone else ought to support it. But to deny the need for some means to meet the problem of medical care for the aged would be folly.
>
> "Surely, some alternative to the Forand Bill can be found—an alternative that would satisfy the need and still be acceptable to all who oppose the present bill."

He points to the acceptance of the Hill-Burton Act and that an alternative to the Forand Bill might be legislation which would separate "the source of funds from the power to administer the program." Administration of the funds, Dr. Fishbein suggests, might be placed in the hands of special commissions such as have been created in many states. He believes that they might purchase suitable health insurance from existing agencies, and arrange for the construction of necessary hospitals and beds in nursing homes to meet the needs of the elderly.

T. W.

DON'T BE FOOLED BY DRUG ADDICTS*

LeROY W. MORRISON

Agent in Charge, Washington Field Office, Bureau of Narcotics, United States Treasury Department

Drug addicts are, in general, a very definite threat to the unsuspicious, sympathetic practicing physician. It was for this reason that the Federal Bureau of Narcotics, under the direction of Commissioner Harry J. Anslinger, was asked by your committee to participate in this program.

Please bear in mind that the people I shall speak of are not the aged or infirm patients suffering from incurable diseases; not the ones who are bona fide medical patients. We rarely interfere in these circumstances, but only where diversion of narcotic drugs is detected.

The nonmedical addicts are the ones who are addicts by choice. They will remain addicts and contaminate innocent and unsuspecting fellow human beings no matter how much the sympathetic doctor tries to help them. Eventually in one way or another "they will turn and bite the hand that fed them." You should, therefore, be in a position to protect your own as well as the doctor's welfare in any contacts you may have with nonmedical addicts.

First, you should become acquainted with the general appearance of the average drug addict:

Sallow complexion (ashen)

Pupils: (a) pinpoint when satisfied or not in need of an injection; (b) dilated when effect wears off or dilated when using synthetics or cocaine

Tracks (needle marks) over veins of hands and arms (long sleeves are often worn)

Addicts are usually glib talkers; many are what we call "con artists"—very convincing talkers. They are pathologic liars but unusually persuasive. They can simulate and describe the symptoms of any disease or ailment requiring narcotic drugs to alleviate pain. They are expert in their performance and can imitate the exact symptoms. As a rule they will use renal colic or gallbladder ailments as their first approach.

Some doctors' routine examination for kidney stones includes an examination of the urine specimen. After voiding in the container (generally done in private), the addict will prick his finger and squeeze blood in the specimen. This is most convincing to many doctors.

We have known of cases where a male and female addict posing as man and wife visited a doctor's office. The "wife" wanted to be examined for pregnancy. The doctor took the woman into the examining room. The "husband" then ransacked the office for prescription blanks, which they could forge. Ordinarily other items of value, not nailed down, will be removed too.

In some instances this trick is worked by 2 women. The person remaining outside the examining room will do the stealing. If the doctor has a nurse or receptionist remaining in the reception room, she will ask for a drink of water or resort to some other subterfuge to get the receptionist out of the office so she can look for the unguarded prescription blanks.

Following is another example of how doctors can be deceived by a drug addict using an aged person as a prop.

A young girl, an addict-prostitute, became friendly with a "down and out" man 84 years of age. Through artful and clever deception this girl managed to introduce the elderly gentleman as her grandfather from a distant city, claiming that he had cancer of the rectum. Most doctors realize an examination of this type is messy and undesirable to perform. Six physicians simultaneously wrote prescriptions for the old man over a long period of time. The girl obtained enough morphine to keep up her habit, and she sold the tablets which she did not require at $5.00 per grain. She and the old man lived quite well and comfortably for some time. When a routine inspection uncovered the prescriptions in drug store files, it was learned that the old man had been dead for about 6 months and the doctors were still writing prescriptions for him and delivering them to the girl addict. She had told the doctors her "grandfather" was in his terminal stages and confined to bed.

Another ruse that was worked in the Washington, D. C. area by an addict was to telephone a doctor pretending to be a priest from a certain parish. The "priest" would ask the doctor to please visit a very sick man at a certain address. Upon arrival of the doctor the addict feigned a kidney or gallbladder ailment and the doctor immediately injected narcotics to relieve the "suffering" and left a prescription for more narcotics. This method was discovered and brought to an end when a parking lot attendant near the addict's residence told a narcotic agent that the person across the street must be awfully sick—that 4 doctors had visited him daily for 3 or 4 successive days.

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* Presented as a part of the Symposium for the Doctors' Office Staffs sponsored by the Medical Society of the District of Columbia, January 15, 1960.

Addicts have been known to go into a young doctor's office and claim illness requiring narcotics. The young uninitiated doctor administers or prescribes narcotic drugs for the addict. The following day the experienced drug addict returns to the doctor's office and tells the doctor that it is against the law for him to furnish addicts with drugs and that the doctor violated the Federal or state law. The addict informs the doctor that he will not report him if he will give him another prescription. This is a form of blackmail addicts will use on doctors, and those who are frightened enough continue to write prescriptions for the addict from time to time "to keep from being reported."

After a doctor has made his first mistake, some addicts will tell him they are working for the authorities and will not report him as long as he continues to write prescriptions for them.

Addicts will watch physicians' offices and residences very carefully. They will wait until the doctor leaves and, knowing that the wife or receptionist or nurse is the only person present, they will appear and represent themselves to be a repairman for some diathermy, sterilizer or other piece of equipment in the doctor's office or treatment room. The unsuspecting wife or assistant will admit the "repairman" and leave him alone. He steals narcotics and other items of value that he can "fence."

Prescription blanks used for writing notes to milkmen, cleaners, grocers, and other merchants are desirable objects for the addict. They manage to erase the writing and forge a prescription for narcotics on the prescription blank of the innocent doctor.

These are some of the many tricks or ruses used by addicts to obtain drugs or prescriptions for drugs. Whenever you are in doubt about a situation involving narcotic drugs, feel free to call your local police or the Federal Bureau of Narcotics for advice. We want to help you and prevent your being duped or fooled by the unscrupulous and scheming addict. Remember one thing, we want to be helpful; not to interfere with the legitimate practice of medicine, but to advise and assist the doctor and his medical assistants when they are in doubt or in need of having the provisions of the Federal Narcotic Law explained as these provisions relate to the administering or prescribing of narcotic drugs.

PHYSICIANS AND UNITED NATIONS

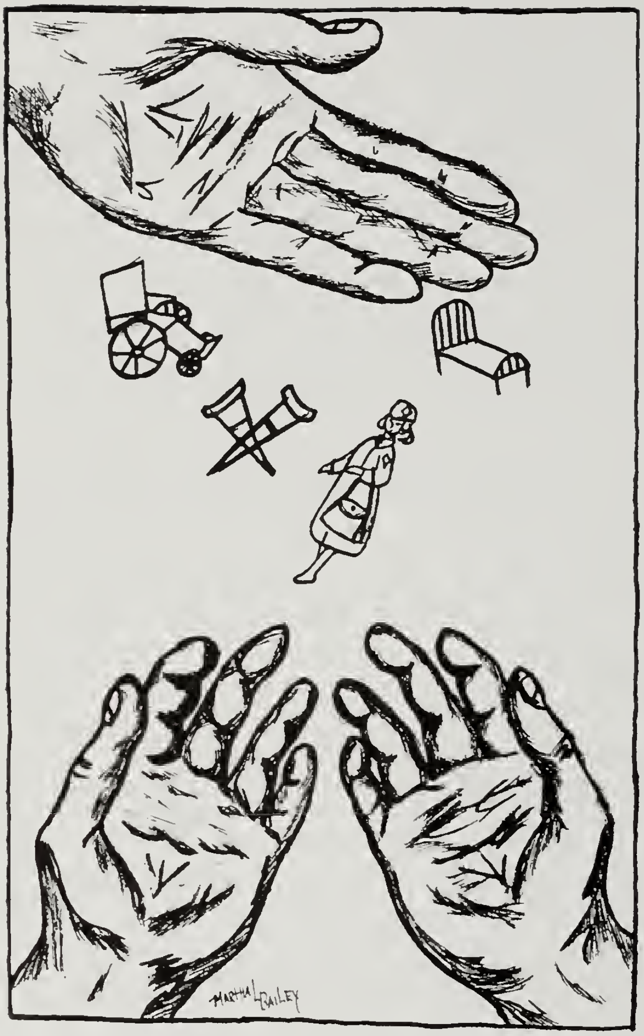
Physicians are traditionally peace lovers. They hate to see people maimed and killed in battle. It is against all their tenets and beliefs. Therefore, as citizens of the United States and the world, what could be more appropriate than for them to take a personal and supporting interest in international organizations dedicated to the preservation of peace.

The American Association for the United Nations was founded 15 years ago along with similar associations in other leading countries to educate people on world affairs and to broaden their approach to world problems. The Capital Area Division, under the able and dynamic leadership of Mr. A. Buel Trowbridge, the new President, gives those of us interested enough to become members the opportunity to keep abreast of what the United Nations is doing and a chance to be a constructive part of an effort of humanity to achieve success in the area of the greatest challenge of our times—"peace on earth, to men of good will."

The chances for attaining this great goal can only be in direct proportion to the members and kinds of people who "get in there and pitch." Physicians as leaders in the community and molders of public opinion have a unique opportunity to become a forceful part of this tremendous enterprise.

The United Nations has helped keep cold wars from becoming shooting wars. May it be able to continue! Its chances will be better with your help. For further information, telephone the American Association for the United Nations, Capital Area Division headquarters, National 8-8330. Your interest will be welcomed and appreciated.

Mrs. Wallace M. Yater



DOCTOR!!!

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—SERVE PATIENTS
—SAVE LIVES
—SPEED RESEARCH

GIVE
AMERICAN
CANCER
SOCIETY

ECONOMICS OF MEDICAL CARE*

C. WILLARD CAMALIER, JR., M.D.

Immediate Past Chairman, Committee on Medical Care, the Medical Society of the District of Columbia

The subject of economics in medicine is one of great importance to us all, and this will be an attempt to show what has happened in the past, and, if the trend continues, what will happen in the years ahead.

Prepayment medicine is merely a way of budgeting medical care. A certain amount of money is deposited with a central agency by the consumers and disbursed when needed for the care of consumers by that central agency. In the old Roman days this was done more simply. A physician, who was a slave, was purchased and it was his function to render care to the entire household of his master. This was a form of prepayment although it involved the expenditure of only one sum—the purchase price. As time went by and slavery in the civilized world died out, the physicians became and remained free men working for individual fees which varied according to the ability of the person to pay. Payment in the form of gold, jewels, chicken, sheep, and any other form of barter became commonplace even during the early days in this country. However, this was not always satisfactory and we find this leading to a form of contract work or "agreement" medical care. A man owning a large number of slaves or bondsmen would agree to pay a yearly sum to a physician who would then give medical care and advice to the entire group. In some sections of the world physicians were retained on a yearly basis to prevent illness, and their failure to do so resulted in diverse forms of punishment ranging from loss of the position to loss of life—quite a penalty for any of us to contemplate in our modern era.

So you see, the methods of securing medical care have been diverse ones throughout the ages, indicating, even from the earliest times, a wish to have this care while at the same time obtaining it in the least painful way financially. It is this concept which has led us into present-day developments. There are, of course, other factors which will be brought out later.

It has always been possible for the indigent to obtain care through the free clinics which have formed the background of almost all of our large hospitals. Through such clinics the material for instruction of the students of medicine has been made available. It was to such institutions that those injured at work were often taken and cared for, often at no expense to the employer. The growth of labor unions and their effective organizations led to the concept of the Workmen's Compensation Law, which, by means of a third party in most instances, paid for the medical care necessary in such cases. This was in effect a form of prepayment medicine, and in order that the amount necessary to pay could be calculated, a scale of fees was necessary and was adopted.

Up until the early 1930's the bulk of medical care was on a fee-for-service basis. The physician charged and the patient paid if he could or would. Then came the great change in social thinking. A "great idea" spread—security for all, including medical care, from the cradle to the grave, and all supplied by a benevolent government. In other words, "socialized medicine" was put forward. This was to be utopia: free care for all by salaried physicians and all supported by taxes levied upon the entire population. This concept went down to defeat, but it was clear that the buying public was interested in some method of budgeting for care, and that some method would have to be devised. The answer was the formation of group coverage through monthly payments of hospital bills, in other words, group hospitalization. This was handled either through a nonprofit organization, such as Group Hospitalization here, or by commercial insurance plans. The arrangements for paying for hospitalization varied from full payment to the hospital to a set daily amount paid to the patient to be applied to the hospital bill. At about the same time some far-sighted physicians foresaw the demand for prepaid physicians' fees and a number of attempts were made to start similar nonprofit plans whereby monies would be collected from consumers and physicians reimbursed from this fund for the care rendered. One of the first was started here but failed very quickly because of the lack of public support. The commercial insurance companies were reluctant to enter this field because they thought there was no way of calculating the cost and therefore the necessary premium when no control on charges was available.

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* Read before the Washington Medical and Surgical Society in Washington, D. C., January 25, 1960.

Late in the thirties there entered another type of care—the group plan, which offered coverage of both hospital and medical care in a package where the physicians were salaried and the patients were seen in a clinic type building. Group Health Association of this city was a pioneer in the field, and during a long and bitter court fight established the legality of such arrangements. It became increasingly clear that the physicians of this country would have to answer this type of challenge in some way to preserve their independence, for again the forces supporting tax-supported care for all were at work. The answer we know. It was the formation of the nonprofit prepaid medical care plans, known as the Blue Shield Plans. Under this plan the physician agreed to service persons under certain income limits for a set return in dollars while at the same time he was free to charge over and above the allowance of the plan to those above the income level agreed upon. For the second time, then, the physician had subjected himself to fee control, first in compensation cases and now in Blue Shield contracts.

The insurance companies, noting the instant success of these Plans, now entered the field with a diversity of fee schedules. These led inevitably to ill will because the physician insisted upon his usual fee while the patient felt that he had paid for protection and he should have that protection. If the insurance company had set a certain fee for a particular service, then that must be the correct one and the doctor should be glad to get it. Inasmuch as an insurance company pays to the holder of its policy, unless an assignment is granted by the patient, the physician was and is today faced with the problem of receiving any of his fee from the patient. This, then, has led to another form of the old contract or agreement practice of medicine. Suppose an organization with a variety of salaried persons purchases a policy from an insurance company. The organization then contacts a physician, who agrees that in return for having all work sent to him he will take as his fee only that amount stated in the policy regardless of his usual fees or the usual fees in the area. Or a man may agree to accept only the amount allowed by Blue Shield for all categories of income in an organization. This is more widespread than you may think and fortifies the thoughts and stand of those who believe that medicine is now ripe for a full-scale regulation of its fees.

What are some statistics and trends in this field? I realize that such items are often tiring and hence will keep them to a minimum. The latest available complete figures are for 1958, and they show that at the end of that year there were 123 million Americans with health insurance of some type. Of the ones who carry hospitalization insurance 91 per cent carry surgical coverage also. It may be a surprise for you to learn that the insurance companies cover 72 million persons and the Blue Cross-Blue Shield Plans cover only 55 million. Other plans, mainly prepay clinic type, cover 5 million. Total money paid for medical care in 1958 was $16.7 billion, of which $4.8 billion went to doctors and dentists. In 1929 the hospitals received 13.7 cents of every medical dollar, while in 1958 25.8 cents went to the hospital. The percentage of the dollar for the physician was 33 cents in 1929 but fell to 24.5 cents in 1958. Even more startling is the rise in payments for hospitalization and medical care insurance, from $108 million in 1929 to $5.9 billion in 1958. Taken with other evidence and statistics it appears that physicians' fees are being held down by a combination of prepayment plans, agreements, and consumer resistance.

With the growth of labor unions and their increasing emphasis on fringe benefits, we find another factor influencing medical care. One of the pet benefits sought by union groups is full medical coverage paid for either by joint contribution between worker and employer or by the employer alone. Either one calls for predictable expenditure for care, and hence another powerful force for leveling off or governing fees comes into play. As more and more persons purchase or are covered by insurance the greater the pressure for stabilization of physicians' payments so as to stabilize the cost to the consumer. The rise in the cost of hospitalization, which has been staggering, is another facet of this picture, because as the premium necessary to meet the hospital cost rises there exists a desire to reduce something, and that something, by inevitable steps, becomes the physician's portion of the medical dollar.

What are the forces working on this phase of the subject?

1. The labor unions through their attempts to procure care for their members have set up clinics,

hospitals, arrangements with existing full-coverage plans, or arrangements with individual hospitals and physicians, all in order to supply and purchase care at rates most advantageous to themselves and with a leveling of fees paid.

2. The Compensation schedules, which state clearly the amount payable to the physician for the care rendered.

3. The Federal Government through its Medicare program, which calls for care for dependents of military personnel on a fee schedule basis.

4. The Federal Government in its assistance to the indigent, by which matching funds are available to states which will set up a schedule of fees for such persons to be treated.

5. The Blue Shield Plans, which must offer more coverage at as low a premium as possible while at the same time raising their income limits to encompass more people.

6. The insurance companies, which must show a profit and hence are interested in stabilizing fees of physicians in order to govern the premium accordingly.

7. The Federal Government, which is interesting itself in the field of medical care by—

(a) A plan to take effect July 1, 1960, whereby the Government will pay a part of the coverage elected by the employee. This may be insurance, Blue Cross, or existing group plan.

(b) Aid contemplated to the over-65 age group through the mechanism of the Social Security structure.

(c) Discussion about Federal subsidy to hospitals and to medical education.

8. Physicians themselves who agree to accept lower fees than the usual fee irrespective of the work involved.

From these facts I trust the trend is clear. It is for increasing stabilization of physicians' fees either by continued pressure from consumer groups (which includes the Federal Government) or by physicians themselves in an attempt to prevent being placed on a salary. Even among physicians the difficulty of unity is well known, for what is to prevent Dr. A from agreeing to a schedule of fees with some group only to have his fees underbid by Dr. B, who offers the identical services at 10 per cent less. Only if physicians will unite and stand firm without one dissenter will the doctors remain free. The alternative is full-salaried physicians working under an agency of the Government, which is inevitable unless we pull together. Pressure from all sides continues with increasing concern to us all.

THE VISITING NURSE ASSOCIATION CELEBRATES 60 YEARS

MRS. HAROLD N. MARSH

President, Visiting Nurse Association

". . . With no one in the house to do any nursing except the husband and young son, very willing and most tender, but unable to do the helpless woman's work, there was one to two hours' work daily (for the visiting nurse) to make her comfortable."

These lines, written by a nurse for the Instructive Visiting Nurse Society on February 3, 1901, could well be part of a nurse's report today, even though little else would remain the same. The above actual account of a nurse's day's work continues: "Then came the daily call at the Police Station to get new calls from the Physicians to the Poor, and a walk of about two blocks to No. 4—a case of Bright's disease, cardiac trouble and paralysis of the lower limbs."

The medical, economic and social changes which have taken place in the community in the past 60 years are quietly demonstrated by contrasting the foregoing report with the realities of today. In 1900 the "Society worked in accord with the Associated Charities, but the nurses acted primarily under the direction of the Visiting Physicians of the Poor, who were appointed by the Health Officer of the District of Columbia. Every morning they reported to the police precinct of their district and received orders from the doctor in charge."

Today there are 5 branch offices to which the nurses report every morning for new calls from many physicians and to replenish the well-known black bag. With a professional staff of 54, 3 physical therapists, and 3 practical nurses, careful planning

VNA NURSES THEN AND NOW

MRS. CALVIN COOLIDGE, Honorary Member of the Board of Directors of the Visiting Nurse Association, surrounded by staff members in the 20's. Below at right is the way the Visiting Nurse on duty looks today.

and routing are needed to meet the many demands. Any one who is ill or has suffered an accident may have professional nursing care at home on a part-time basis and pay the actual cost of a visit. For those unable to pay, provision is made for them to pay part or to receive this skilled care free. As in 1900, the emphasis is on helping the patient or family to manage by themselves. Exercise programs and rehabilitation measures are started early or carried on following hospitalization as directed by the physician. Physicians call the nurse to guide the worried young mothers in infant care or to help the mother with plans before the baby comes. Visiting Nurses are skilled in handling the anxieties and stresses concurrent with illness. Psychiatrists call on them to assist with their treatment plan in the home.

The story of the past 60 years is a story which began with the vision and determination of 3 women, Dr. Anne A. Wilson, Miss Emily Tuckerman, and Mrs. M. W. C. Bayard. Borrowing from the experience of William Rathbone, the English Member of Parliament who started the Visiting Nurses in Liverpool in 1874, and from the subsequent experiences of Associations in Boston, Philadelphia and Buffalo, founded in 1886, they signed articles of incorporation in the District "on the 16th day of April, 1900, at 2:30 p.m." With very little money but with an energy derived from the recognition of a desperate need, the Association, then called the Instructive Visiting Nurse Society, grew from one with an operating fund of $4,464 to one with a budget of $10,204 in 1908, and $21,344 in 1914. Although these amounts seem small in comparison with today's operating fund of $363,006.44, they indicate a tremendous rate of growth.

Today our income is derived from patients' fees, insurance indemnity, contracts with the Health Department and Veterans Administration, allocations from the American Cancer Society, Multiple Sclerosis and other health organizations, but principally from the United Givers Fund. It is spent by the staff, who make possible the 92,408 visits a year.

Our regular work is too valued and well known to repeat here. Less well known, however, is the highly successful Broad Spectrum Home Care Program initiated a year ago and approved by the Executive Board of the Medical Society of the District of Columbia. This program, a pilot project made possible by a grant from the Eugene and Agnes E. Meyer Foundation over a 3-year period, was initiated because the Association recognized the needs arising from changing medical and social problems. The program's purpose is to shorten hospital stay and convalescence by giving the patient multiple services at home coördinated by a VNA supervisor who has had special training in rehabilitation nursing. Thus, under the guidance of a physician, the patient receives care from the nurse, social worker, physical therapist, occupational or speech therapist, and other community resources.

An example of the team approach to the patient and family, under the leadership of the physician, is found in the case of an 18-year-old boy who sustained a diving accident which resulted in loss of all motion and sensation from the waist down. There was also some weakness in his hands. He had a long period of hospitalization, which included surgery, to relieve pressure on his spinal cord. He was then sent to a rehabilitation center. This was an unhappy experience. Probably his physical condition at that time could not tolerate the situation. Certainly his emotional state could not, and he insisted on returning to his home at the end of one week. His father had died several years before and he was living with elderly grandparents who had used a great deal of their life savings in hospital and medical care for this boy.

When he came to our attention he was in this home under the care of a male attendant, who came in at 10:00 a.m. and stayed until 4:00 p.m. 5 days a week. Because of his youth, his potential, and his need for at least a limited rehabilitation that would make him independent in his personal care, it was thought that he should have as much of this service as could be provided in the home with the hope of preparing him for a more intensive rehabilitation program.

His physician welcomed additional services. He stated that he believed a well coördinated effort was indicated. He stated his concern that a poor relationship, due to misunderstanding, existed between the family and the hospital and the agency that had sponsored the boy at the rehabilitation center, and that he, the family physician, did not have time to follow through in interpreting the problems of each to the other. He also expressed concern lest the boy lose some of the gains he had made if therapy were not provided in the home.

Under supervision of the family physician, our physical therapist visited twice weekly to carry out an exercise program to maintain muscle power and to prevent further impairment. She taught a simple exercise régime to the patient and the attendant so they could carry it out daily.

The social worker worked with the grandmother to clarify the financial situation and to understand her overprotective attitude toward the patient. She interpreted the situation and the personalities of the grandmother and the patient, as she found them in the home, to the hospital staff and agency concerned with vocational rehabilitation measures. In turn, she interpreted the services and limitations of these agencies to the family.

As a result of this coördinated effort and planning, the patient returned to the hospital for further treatment and evaluation. We believe we can justly claim that our teamwork moderated the grandmother's antagonistic attitude and quickened the patient's motivation. While the patient was in the hospital surgical procedures were carried out that improved his physical functioning. Staff members who had worked with him before reported him to be more mature, more active and positive in working on plans for his future care. A new plan was made for rehabilitation that would not take him out of his home environment. The hospital staff, the private physician, and the Home Care team worked together on this plan.

Although it took many months to bring this about, this young man is now continuing to improve and is gaining a more satisfying life. He is attending American University in a wheel chair and hopes to prepare for radio work. The cost of his education is being paid by Vocational Rehabilitation Service.

There is a deep sense of satisfaction in the service which the Visiting Nurse Association has rendered during the past 60 years to the people of Washington. We wish to express our appreciation to all those who have worked with us. We are looking forward to continued coöperation with the physicians of this community in a mutual effort to foster family health in the midst of stress.

On the Lighter Side

This month my guest columnist is Dr. James A. Gannon, Sr. His story is warm and human. I think you will like it.

J. Earl Kadan, M.D.

The black tie dinner invitation was for 7 o'clock. (I usually dine at 6:30, and I have the usual male aversion to a Tuxedo.) To postpone my dinner for half an hour did not seem unreasonable, but the prospect of adjusting studs and finding cuff buttons was not alluring. However my friends, whom I had met only recently, were pleasant, intelligent and congenial people. So I accepted. I timed my arrival at their apartment for 7:15, when I thought the company would be already assembled. As I entered the elevator a couple in evening clothes asked the operator to direct them to #517, which was occupied by my hosts. I introduced myself and we proceeded to #517. We were the first arrivals. Our hosts greeted us, and 5 minutes later another couple arrived. This seemed to be a quorum because a variety of alcoholic concoctions were passed, together with *apéritifs*. My stomach prefers alcohol only when it is well diluted, so I chose bourbon and soda. Cocktails are said to be more potent, but I wonder if mild nausea and dizziness are not mistaken for intoxication. These symptoms can be due to the ingredients other than alcohol which go into the preparation of cocktails.

The other guests arrived at intervals of 5 or 10 minutes. I glanced at my wrist watch when the party had been completed. The time was 8:15. I had consumed 3 highballs (my daily allowance is 2) and an unknown number of various *apéritifs*. A rapid mental calculation confirmed that my caloric limit for 24 hours had already been exceeded.

Dinner was announced at 8:30. I gallantly offered my arm to the nearest lady, which was a fortunate circumstance, because I stumbled over the edge of the rug on my way to the candlelighted dining room, and her presence allowed me to recover my equilibrium just in time. We parted as we approached the table to find our place cards. Of course, I began at the opposite side of the table from where mine was located, and when I found my place card I sat down before I assisted the lady to my right into her seat. I hoped she did not notice the omission. She evidently took no offense and began to eulogize a mutual acquaintance whom I ordinarily detest, but whom under the influence of three highballs I found myself extolling. My companion wore a strapless gown which made it hazardous for her to cough. From her neck was suspended a delicate platinum chain which was attached to a miniature jeweled airplane resting on her expansive chest. She evidently noticed several furtive glances that I directed to the neighborhood of the little airplane because she remarked that I evidently admired it. The trite but true expression *in vino veritas* demonstrated its reliability when I answered, "To tell the truth, I was studying the landing field!" She had evidently heard this before because she continued her conversation without hesitation or embarrassment.

The dinner progressed, course after course, with the white wine followed by the red wine and, as dessert was served, cold bubbly champagne. I do not usually care for wines but I automatically sipped as the party became gayer and the conversation more scintillating. I became more self-confident and less careful in expressing my thoughts. My appreciation of allegedly funny stories, regardless of their ages, was demonstrated by my laughter and increased esteem for the storytellers. I contributed one or two of my own (carefully omitting reference to farmers' daughters), which were well received.

The ladies finally retired to the drawing room, followed after an appropriate interval by the gentlemen. There coffee and brandy were served. The ladies had congregated at one end of the drawing room to exchange confidences, so the gentlemen occupied the chairs at the opposite end. They expounded about politics, the stock market, taxes, foreign relations and golf. My previous exuberance began to wear off and my eyelids became heavier. My interest in Castro and Khrushchev began to lag. My contribution to the debate concerning vice-presidential candidates was reduced to an occasional nod. I longed to be home and in bed. Suddenly someone touched my elbow and said it was time to

(*Continued on page 256*)

News and Personals

MEETINGS

The ninth in the series of **Grand Rounds closed-circuit TV programs for physicians,** sponsored by The Upjohn Company, will originate "live" from the Ohio State University College of Medicine in Columbus, Wednesday evening, April 20. Eight eminent clinician-educators will present a 90-minute panel discussion on "Gastrointestinal Problems: Medicine or Surgery?" The program has been approved for Category II credit by the American Academy of General Practice. It can be heard in Washington, D. C. from the auditorium of the Medical Society of the District of Columbia, beginning at 9 p.m. Fourteen other cities in the United States will carry the program.

Panel participants will be Dr. Richard B. Cattell, of the Lahey Clinic; Dr. Philip J. Hodes, of Jefferson Medical College, who will act as moderator; Dr. Franz J. Ingelfinger, Boston University School of Medicine; Dr. Michael J. Lepore, Columbia University College of Physicians and Surgeons; Dr. Rodney Maingot, of the Royal Free Hospital, London; Dr. Richard Schatzki, Harvard Medical School; Dr. Owen H. Wangensteen, University of Minnesota School of Medicine; and Dr. Robert M. Zollinger, Ohio State University College of Medicine.

Dr. Thomas W. Mattingly will deliver the **36th Kober Lecture** at Gaston Hall, Georgetown University, April 27, at 8:15 p.m. He will speak on "The Prevention and Control of Heart Disease." Dr. Mattingly, who is Director of Medical Education and Senior Attending at the Washington Hospital Center, was selected as lecturer by the Executive Council of the Association of Military Surgeons. This is in accord with the provisions of the founders of the Kober Lecture, which give the privilege of selection to this Association every third year. All members of the Medical Society are cordially invited to attend.

General Mattingly

Dr. Mattingly is Clinical Professor of Medicine at Georgetown University School of Medicine. His interest and active work in the field of cardiology are long standing and well known. Following his service in World War II he established a Cardiology Service at Walter Reed Army Hospital which has become a model for many institutions throughout the United States. He retired from active duty in the Army in 1958 with the rank of Brigadier General. He is consultant in cardiology to Walter Reed Army Hospital and to the White House.

The recently organized **D. C. General Hospital Medical Alumni Association** will hold its second **Alumni Day** on April 28, 1960. The program will consist of a business meeting at 9:30 a.m., followed by 6 scientific papers presented by the staff of the hospital. The program will be highlighted by the presence of Dr. Harry F. Dowling, Professor and Executive Officer of the Department of Medicine, University of Illinois College of Medicine. Dr. Dowling will speak on "Exploring the Common Cold." In the afternoon, he will conduct grand rounds on the Medical Services.

The following scientific papers will be presented during the morning session beginning at 10 a.m.:

"Experience with Needle Biopsy of the Peritoneum," Drs. Robert Donohoe, Bruce Shnider, and Mary Matthews

"Acute Intermittent Porphyria," Drs. Raymond Olsson and Howard Ticktin

"Evaluation of the Size and Shape of the Kidneys on the Roentgenogram," Dr. Bela Gondos

"Unsuspected Hazards of Oncolytic Drugs," Drs. G. Lennard Gold and Bruce Shnider

"Comparison of Hemodynamics of Angiotension II and Noradrenalin in Man," Drs. Frank Finnerty, Gloria Massaro, Victor Shupkovich and John Merendino

"Effects of Aldosterone Inhibition on Cirrhotic Patients with Massive Ascites," Drs. James Kirby and Howard Ticktin

Alumni Day will conclude with a banquet starting at 6:30 p.m., to be held at the Presidential Arms, 1320 G Street, N.W. All members of the Alumni Association and their wives are cordially invited to attend.

The membership committee has attempted to contact all former house officers or full-time medical personnel who might be interested in joining the Association but many such individuals may not yet have been reached. Information regarding membership and attendance at Alumni Day may be obtained by writing to Dr. Robert F. Donohoe, Secretary-Treasurer, D. C. General Hospital Medical Alumni Association, Washington 3, D. C.

The new **Institute of Forensic Medicine of the George Washington University,** which is described elsewhere in this issue, will sponsor its **first symposium on "The Hospital and the Law"** in the Lisner Auditorium, Tuesday, May 3. Presiding will be Dr. Murdock Head, who is Chairman of the Institute. An intensive program has been scheduled beginning at 9 o'clock.

"Recent Trends in Medical Legislation" will be presented by Dr. Warren F. Draper, Executive Officer, United Mine Workers of America, and Mr. C. Joseph Stetler, Director of the Law Division, American Medical Association. At 10:45 a.m. there will be a panel discussion on "The Hospital and Negligence . . . A Survey." Panelists will be Attorney David G. Bress, Past President of the D. C. Bar Association; Attorney K. Robert Conrad, of the Board of Managers, Graduate Hospital of the University of Pennsylvania; and Mr. Victor F. Ludewig, Administrator of the George Washington University Hospital.

Following luncheon, Attorney H. Mason Welch, of Washington, will discuss "Malpractice and Liability Insurance . . . A Present Evaluation." The second afternoon speaker will be Attorney Joseph D. Bulman, Chairman of the District Court Committee of the D. C. Bar Association; his topic, "The Doctrine of *Res Ipsa Loquitur*." The latter part of the afternoon will be devoted to a panel discussion on "An Analysis of the Legal Responsibility of the Governmental and Civilian Hospital." Panelists will be Mr. Conrad; the Honorable David B. Karrick, member of the D. C. Board of Commissioners; Colonel Frank M. Townsend, M. C., U. S. A. F., Director of the Armed Forces Institute of Pathology; Attorney David A. Turner, of the Veterans Administration; the Honorable Leonard P. Walsh, Judge of the United States District Court for the District of Columbia; and Colonel Donald S. Wenger, M. C., U. S. A. F., and Colonel Donald F. Westra, M. S. C., U. S. A. F., both of the Office of the Surgeon General of the Air Force.

Members of the Medical Society are most cordially invited to participate. The registration fee will be $10 per person; advance registration is requested so that preparations can be made as complete as possible.

The second Annual Heart Symposium, sponsored by the Montgomery County Tuberculosis and Heart Association, will be held at the National Institutes of Health in Bethesda, May 11, in the Clinical Center Auditorium.

The program will consist of a panel on "Cerebral Vascular Disease" and special papers. Speakers will include Dr. J. Gordon Barrow, Emery University; Dr. John M. Evans and Dr. Harold Stevens, George Washington University School of Medicine; Dr. John P. Gallagher and Dr. W. Proctor Harvey, Georgetown University School of Medicine; Dr. Selwyn A. Kanosky, Temple University School of Medicine; Dr. Albert D. Kistin, Beckley (West Virginia) Memorial Hospital; Dr. Kenneth M. Moser, National Naval Medical Center; and Dr. Stanford Wessler, Harvard Medical School.

There will be no registration fee. The program is approved by the American Academy of General Practice for Category II credit.

The Washington Medical and Surgical Society will hold its annual outing and banquet at the Indian Springs Country Club, May 12. Golf will be played in the afternoon, starting at 12, and dinner will follow a social hour beginning at 6:30 p.m. Members and their wives and guests will participate. Dr. Robert S. Smith is in charge of arrangements.

The George Washington University Medical Alumni will sponsor two days of scientific symposia, May 27 and 28. The meetings will include a business session on May 27 and will close with a banquet, May 28. Special honorees will be members of the Class of 1935, who will be invited to return to the University for a Silver Anniversary Reunion.

GENERAL NEWS

Dr. William Ross Morris, Chairman, presided at the meeting of the **Executive Board of the Medical Society of the District of Columbia,** February 23, 1960. At this meeting the Board approved the holding of a joint Scientific Assembly with the Medical Society of Virginia at the Sheraton Park Hotel, October 14–17, 1962.

President Alfaro submitted the following appointees to committees and they were confirmed by the Board:

Dr. Everett S. Caldemeyer, to the Grievance Committee.

Dr. Robert P. Odenwald, to the Committee on Public Health.

Dr. Robert C. Rush, to the Committee on Public Policy.

Drs. W. LeRoy Dunn and Oscar B. Hunter, Jr., to represent the Society on the Board of Trade's Committee on "Health—U.S.A." Awards.

Dr. William P. McKelway, to be designated Vice Chairman of the Cancer Morbidity Review Committee.

In order to aid in the development of health mobilization efforts assigned to it in time of disaster, the **United States Public Health Service** announces a plan to **commission and employ local physicians as active PHS Reserve Officers.** These officers would remain in their communities and be given mobilization assignments operationally related to the emergency plans of the state and local area in which the Reserve Officer lives and would be expected to function in the event of a disaster.

During the year 1960 the Public Health Service will call a total of 50 reservists to part-time duty in the District of Columbia and the 4 states common to Region 3 of the Office of Civil Defense Mobilization, i.e., the states of Virginia, West Virginia, Kentucky, and Maryland. Each of these reserve commissioned officers will be placed on duty for approximately the equivalent of a day's work per week on emergency and health care measures in their own communities under the direction and program control of the state and local health authorities.

Local physicians interested in acquiring active reserve status in the Public Health Service, which would enable them to make an important contribution to their community as well as receiving a day's pay per week, should contact Mr. Douglas McAlister in the D. C. Health Department, Emerson 2-9710.

Establishment of the **Institute of Forensic Medicine at George Washington University** was announced, March 15, by Dean Charles B. Nutting, of the National Law Center, and Dean John Parks, of the School of Medicine. The Institute, under the co-sponsorship of the Law School and the School of Medicine, will be headed by **Dr. Murdock Head,** who is Assistant Clinical Professor of Surgery and Professorial Lecturer in Forensic Medicine at the University. He is a practicing surgeon and a member of the Virginia and District of Columbia Bars.

Dr. Head

The Institute will serve as a forum for the disciplines of law and medicine in areas where these professions are interrelated and where they vitally affect the public. Medicolegal problems of the individual and the community at the national and international level will fall within the scope of the Institute.

In addition to classroom instruction and symposia, institutes of several days' duration are contemplated to meet the needs of lawyers and physicians in practice as well as students enrolled in degree programs at the University. The first of the Institute's series of symposia is scheduled for May 3 (see page 244) and will consider the topic, "The Hospital and the Law." Further symposia to be scheduled will include such subjects as "Current Medical Legislation" and "Psychiatry and the Law."

In setting forth the objectives of the Institute, in an address to medical students and invited guests, Dr. Head pointed out that the District of Columbia is ideally situated for an institute of this kind because of the concentration here of medical and legal talent representing local, national and international interests.

DR. OVERHOLSER CITED BY THE PRESIDENT

President Eisenhower has just bestowed upon Dr. Winfred Overholser, Superintendent of St. Elizabeths Hospital, the President's Gold Medal Award for Distinguished Federal Civilian Service, the highest honor granted to career civil servants. Story on page 250.

The Section on Ophthalmology and Otolaryngology of the Southern Medical Association announces that papers are now being accepted from physicians in either specialty living in the area of the Southern Medical Association for consideration for presentation at the next annual meeting to be held in St. Louis, October 31–November 3, 1960. The paper, or an abstract of the paper, may be sent directly to the Secretary, Dr. Albert C. Esposito, Suite 1212, First Huntington National Bank Building, Huntington, West Virginia, as soon as possible.

The National Foundation offers **research fellowships,** with stipends varying from $4,500 to $8,000 a year, **and clinical fellowships,** with a basic stipend of $4,500 plus additional benefits for dependents. Closing dates for applications for research fellowships are February 1, August 1, and November 1 of each year. The clinical fellowships are in the fields of arthritis and related diseases, orthopedics, preventive medicine, and rehabilitation. Complete information on benefits, eligibility requirements, program of study, and other details may be secured by writing to the Foundation at 800 Second Avenue, New York 17, New York.

Dr. Dale C. Cameron, career officer of the Public Health Service from 1937 to 1954, has been recommissioned in the Service and assigned to the National Institute of Mental Health. According to Dr. Robert H. Felix, Director of the Institute, Dr. Cameron will be assigned to the training branch of the Institute and, in addition, will conduct a several months' study of mental health and mental hospital programs in a number of European countries. Later this year he will be detailed to **St. Elizabeths Hospital as Assistant Superintendent** to fill the vacancy caused by the resignation of Dr. Addison M. Duval.

Dr. Cameron received his medical degree from the University of Nebraska College of Medicine. He holds a master's degree in public health from the Johns Hopkins University School of Hygiene and Public Health. During his career with the Public Health Service he was assigned to Washington in 1945 as Assistant Chief of the Mental Hygiene Division, which subsequently became the National Institute of Mental Health. Since 1954 he has been Director of the Division of Medical Services, Minnesota Department of Public Welfare. He is a diplomate of the American Board of Psychiatry and Neurology, a Fellow of the American Psychiatric Association, and a member of the American Medical Association.

At its annual business meeting in December, the **Medical Alumni Association of Sibley Hospital** elected the following officers:

Dr. C. Willard Camalier, Jr., *President;* Dr. W. Robert Perkins, Jr., *Vice President;* Dr. Howard Katzman, *Secretary;* Dr. John W. Price, *Treasurer;* Drs. Robert B. Havell, Lendall C. Gay, and Harvey Ammerman, *members of the Executive Committee.*

The full Executive Committee consists of the new electees, the officers, and Drs. Milton F. Weingarten and James E. Boland, Past Presidents of the Association.

The Dr. Henry J. Crosson Memorial Rehabilitation Center and School (home of D. C. Society for Crippled Children)

The Doctor Henry Joseph Crosson Memorial Rehabilitation Center and School, at 2800 13th Street, N.W., was dedicated in special ceremonies, March 9. This building will be the new headquarters of the **District of Columbia Society for Crippled Children.** Dr. William P. Argy, Medical Director of the Society, gave a demonstration of children's activities as a part of the dedicatory program.

The new $200,000 building was completed last summer and has been in operation since last fall. It was made possible through a bequest of $100,000 by the late Mrs. Theresa Crosson Pepper, who asked that the building be dedicated in memory of her father, Dr. Henry J. Crosson. Additional funds were obtained through the Hill-Burton program.

A plaque honoring Dr. Crosson was unveiled by a daughter, Mrs. Margaret Crosson Wiley, during the ceremonies. Dr. Crosson, who died in 1952, was a Life member of the Medical Society of the District of Columbia. He served as a member of the District of Columbia Board of Public Welfare for 15 years and was active in the work of the Catholic Charities of the District of Columbia and the D. C. Tuberculosis Association. Mr. John W. Thompson, President of the Society, presided at the program.

Dr. Felix P. Heald has joined the staff of **Children's Hospital** as the first full-time **Director of Adolescent Medicine.** From 1952 to 1959 he was on the staff of the Adolescent Unit of the Children's Medical Center in Boston. A Teen Ward for inpatients was opened at Children's Hospital in December 1956. A clinic was established for outpatient care for adolescents the preceding year.

The Board of Trustees of the **Washington Hospital Center,** at its annual meeting of corporation members, February 24, reëlected Mr. Samuel Spencer, formerly District Commissioner, as President. Dr. Crenshaw D. Briggs was elected to a 3-year term on the Board of Trustees, and Dr. John H. Lyons was one of 3 trustees-at-large elected to the Board.

The Woman's Auxiliary to the Medical Society of the District of Columbia elected new officers for 1960–61 at their meeting in the Medical Society's Library, March 9. The new officers are:

President-elect: Mrs. Leo C. Varden
First Vice President: Mrs. Francis J. Murray
Second Vice President: Mrs. Howard A. Donald
Recording Secretary: Mrs. Harry N. Carlton
Assistant Recording Secretary: Mrs. Thomas E. Griffin
Treasurer: Mrs. O. Hugh Fulcher
Assistant Treasurer: Mrs. Edward W. Nicklas
Corresponding Secretary: Mrs. Harold Heiges
Assistant Corresponding Secretary: Mrs. Sidney Berman

Mrs. James P. Murphy, President-elect during 1959–1960, will head the Auxiliary for 1960–61. The new officers will assume their duties on July 1.

"Mongolism—Hope through Research" is a recent publication of the Public Health Service. It tells of the broad research efforts underway at the Service's National Institutes of Health to find the cause and prevention of this disorder. The pamphlet is listed as PHS Publication No. 720 and Health Information Series No. 94. Single copies may be obtained free from the National Institute of Neurological Diseases and Blindness, Bethesda 14, Md.

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Information, through which requests for speakers for lay groups, including radio programs, can be filled.

Date	*Speaker*	*Subject or Title*	*Organization*
February 19	Dr. Frank S. Pellegrini	Appendicitis	Inga's Angle, WRC-TV
February 23	Dr. C. Willard Camalier, Jr.	Hernia in Children	Inga's Angle, WRC-TV
February 25	Dr. Warren C. Johnson	What Is Mental Illness?	Jewish Community Center and District Association for Mental Health
February 26	Dr. Darrell C. Crain	Rheumatism	Inga's Angle, WRC-TV
February 29	Dr. Peter A. Santucci	The Recognition and Handling of the Unachieving Student	Faculty of Montgomery Blair Junior High School
March 1	Dr. Christopher T. Bever	Seeds of Delinquency	Weller Road School Parent-Teachers Association (Wheaton, Md.)
March 1	Dr. Howard S. Madigan	Tumors	Inga's Angle, WRC-TV
March 7	Dr. Julius Schreiber	Psychodynamics of Prejudice and Discrimination	Adas Israel Congregation
March 8	Dr. William B. Walsh	HOPE Project	Inga's Angle, WRC-TV
March 11	Dr. Paul R. Wilner	Obesity	Inga's Angle, WRC-TV
March 14	Dr. Julius Schreiber	Characteristics of Good Mental Health	D. C. Association for Mental Health, Inc.
	Dr. Sidney L. Werkman, panelist	The Teen-Age	
	Dr. Preston L. McLendon, panelist	What Every Child Needs for Good Mental Health	
	Dr. W. Deaver Kehne, discussant	Job Pressures	
	Dr. John D. Schultz, panelist	Commitment: Voluntary versus Involuntary	
	Dr. Marvin E. Perkins, moderator	Panel on Mental Patients and Their Return to the Community	
March 15	Dr. Brian Blades, panelist	Progressive Patient Care	D. C. League for Nursing and Graduate Nurses' Association
March 18	Dr. R. Lomax Wells and Dr. Anthony Zappala, panelists	Conference on the Alcoholic Employee	Washington, D. C. Area Council on Alcoholism, Inc.

The resignation of **Dr. Bernard E. Conley** as **Director of the Committee on Toxicology of the American Medical Association** became effective April 15. Dr. Conley, who joined the AMA in 1947, has accepted a position as medical research consultant to Hoffmann-La Roche, Inc. During his 12 years with the AMA he helped to develop and influence the programs of the Association's Committees on Toxicology and Pesticides. These programs received an award for outstanding public service from the National Safety Council and commendations from several other national organizations for achievements in the prevention of accidental poisoning.

Laurel Sanitarium, a geriatric hospital for women at Laurel, Md., completed 55 years of service to the Washington Metropolitan Area in January of this year. The month also marked 55 years of service at Laurel by its director, Dr. Jesse Coggins.

Dr. Coggins took over Laurel Sanitarium on January 8, 1905. Until 1950 Laurel admitted mental and alcoholic patients, both men and women. Since 1950 the institution has become a geriatric hospital for women, the only one of its kind in the state of Maryland, licensed as a 90-bed nervous and mental hospital by the state. Laurel Sanitarium has appeared in the advertising pages of the MEDICAL ANNALS since 1934 and each month continuously since 1941.

The newest state medical journal is the *Journal of the Mississippi State Medical Association* which began publication with the January 1960 issue. The Editor is Dr. W. H. Anderson, of Booneville, and the Managing Editor, Mr. Rowland B. Kennedy, of Jackson. The first issue gives promise of an excellent addition to the roster of state medical journals.

Dr. Francis M. Forster, Chairman of the Department of Neurology at the University of Wisconsin, was elected President of the American Board of Psychiatry and Neurology at its annual meeting in New York, December 13. His election followed a year as Vice President of the Board of Directors and service on the Board since 1952. Dr. Forster is well known in Washington as a former Dean of Georgetown University School of Medicine.

Dr. Tom D. Spies, President-elect of the Southern Medical Association and nutritionist of international renown, died, February 28, 1960, at the New York Memorial Center for Cancer and Allied Diseases. A native of Texas, he established the Spies Clinic at Hillman Hospital in Birmingham, Alabama, under the auspices of the University of Cincinnati in 1935. This area was then called "the pellagra center of the Nation" due to vitamin and mineral deficiency in the diet of the poor.

For his research and outstanding contributions to the science of human nutrition, Dr. Spies received many honors during his lifetime. He was cited by the American College of Physicians, the Medical Association of the State of Alabama, the American Medical Association, and at three different times by the Southern Medical Association. He was to have been installed as President of SMA at its 54th Annual Meeting in St. Louis, October 31–November 3.

CORRECTION: One of the readers of this publication has called attention to an error in the obituary of **Major General Albert W. Kenner, M.C., U.S.A. (Ret.)** which appeared in the February issue. General Kenner was born in 1889 instead of 1899. The Editorial Staff appreciates that the error was called to its attention so this correction can be made.

PERSONALS

Dr. Arch L. Riddick, who established the Department of Surgery at Suburban Hospital, was honored at a testimonial dinner, March 10, at the Columbia Country Club by more than 200 colleagues, Suburban Hospital personnel, and friends. Dr. Riddick, who recently retired as Chief of Surgery, had served in that position 15 years.

Dr. Robert G. Angle, Chief of the Medical Staff at Suburban, presided at the dinner and program. Principal speaker was Dr. Donald Stubbs, President-elect of the District Medical Society. Dr. Linwood H. Johnson, Attending Surgeon at the Hospital, who was chairman of arrangements, presented Dr. Riddick, in behalf of the medical staff, with a check for $300 and a plaque which will be erected in the operating room suite of the Hospital.

Dr. Riddick was also presented with a scroll by Mr. Paul Banfield, Vice President of the Board of Trustees, which was given him in recognition and

ARCH L. RIDDICK, M.D.

appreciation of his leadership as Chief of the Department of Surgery since the Hospital was opened in 1943. The scroll was inscribed with a resolution expressing deep appreciation "of his efforts and success in promoting constant improvements in standards of hospital and medical practice and for time devoted to betterment of patient care."

Dr. Winfred Overholser, Superintendent of St. Elizabeths Hospital since 1937, received the honorary degree of Doctor of Laws at the Winter Convocation of George Washington University, held in Lisner Auditorium, February 22. Dr. Overholser served as Professor and Executive Officer of the Department of Psychiatry from 1938 until last year, when he was named Professor Emeritus of Psychiatry.

The degree was conferred upon Dr. Overholser by Acting President Oswald S. Colclough, who described him as "a medical scientist, a social artist, and a public worker."

Dr. Overholser received the honorary degree of Doctor of Science from Boston University in 1940, and that of Doctor of Humane Letters from St. Bonaventure University in 1955. He has been decorated by the Governments of Ecuador and Haiti, and is a member of the French Legion of Honor, with the rank of Chevalier.

He is a Past President of the American Psychiatric Association, the Washington Academy of Medicine, and the Washington Psychiatric Society. He is Chief Medical Advisor to the Rehabilitation Commission of the American Legion. In addition to being author of the Isaac Ray Award book, "The Psychiatrist and the Law," he has contributed many articles to the legal and psychiatric literature on forensic, historic, administrative, and geriatric aspects of psychiatry. He is a member of the Editorial Board of the MEDICAL ANNALS.

Dr. Overholser was also one of 5 Government employees nominated to receive the President's Award for Distinguished Federal Civilian Service. This is the highest honor bestowed on career civil servants. President Eisenhower presented the Gold Medal Awards for "exceptionally meritorious civilian service" on March 7 and cited Dr. Over-

NEW HONORS FOR DR. OVERHOLSER

PRESIDENT COLCLOUGH (right) of The George Washington University exchanges some pleasantries with DR. WINFRED OVERHOLSER, Superintendent of St. Elizabeths Hospital, after conferring upon him the honorary degree of Doctor of Laws at the Winter Convocation.

holser for "profound and far-reaching contributions in the field of mental health."

Dr. Stanhope Bayne-Jones was awarded the honorary degree of Doctor of Laws, February 22, in ceremonies commemorating the 84th anniversary of the founding of Johns Hopkins University in Baltimore.

Some of the highlights in the distinguished career of Dr. Bayne-Jones, which include the deanship of Yale University School of Medicine, were enumerated in an editorial which appeared in the August 1959 issue of the MEDICAL ANNALS following the presentation to him of the Passano Award at the Annual Meeting of the American Medical Association at Atlantic City in June.

Dr. Lawrence E. Putnam has been appointed Editor-in-chief of two medical journals, *Antibiotic Medicine & Clinical Therapy* and *Antibiotics & Chemotherapy*.

Dr. Putnam is Assistant Clinical Professor of Medicine at George Washington University School of Medicine and is on the hospital staffs of George Washington, the Washington Hospital Center, Mt. Alto Veterans Administration, and D. C. General. A graduate of Harvard Medical School, Dr. Putnam joined the Food and Drug Administration in 1941 and later became Assistant Chief of the Health Unit of the Department of Agriculture. He returned to FDA in 1951 as Associate Medical Director of the Antibiotics Branch, Division of Medicine. In 1956 he resigned to devote full time to private practice.

Dr. Putnam is a well known author in the field of antibiotics. He has served on the Editorial Board of *Antibiotics & Chemotherapy* since its beginning in 1951 and on the Editorial Board of *Antibiotic Medicine & Clinical Therapy* since 1955.

Dr. Laurence H. Kyle was elected President of the Southern Society for Clinical Research at its annual meeting in New Orleans, La., in January. Dr. Kyle is Professor of Medicine at Georgetown University School of Medicine.

Dr. Elbert T. Phelps, Assistant Professor of Medicine, Georgetown University School of Medicine, has been appointed Director of the Outpatient Department of the Hospital.

Dr. Paul B. Cornely was elected to a 3-year term on the Board of Trustees of Davis Memorial Good Will Industries at its annual meeting at the Hotel Statler-Hilton in February.

MEMBERSHIP

The following applicants for membership were duly elected to membership by the Executive Board, February 23, 1960, in accord with Chapter II, Article VIII, of the Constitution and By-laws of the Society.

Active Members

Silas B. Hays, 1813 North Herndon Street, Arlington, Va.
Gerald A. Hopkins, 5600 Springfield Drive
William S. Lyons, 629 Lakeview Drive, Falls Church, Va.
Maesimund Banning Panos, 1726 Eye Street, N. W.
John F. Potter, Georgetown University School of Medicine
Mathew Ross, 1855 Plymouth Street, N. W.

Associate Member

James Langdon Foy, D. C. General Hospital

Resident-Intern Members

Virginia A. Duggins, 1635 North Oak Street, Arlington, Va.
Irvin S. Jaffee, 8407 Navahoe Drive, Silver Spring, Md.
Gerald D. Schuster, 7994 Riggs Road, Hyattsville, Md.

CORRESPONDENCE

WASHINGTON, D. C., February 22, 1960

TO THE EDITOR:

Although active with the D. C. Division, American Cancer Society, Inc., I must comment on their page in the February, D. C. ANNALS. This page shows a gloved examining finger and makes the following statement:

"Doctor! May we remind you you can reach 70 per cent of all rectal cancers with your index finger."

This is true! But it is *impossible* for any clinician to *feel* any of the *small*, *early* rectal cancers. What is the good of being able to reach a lesion if you can't tell whether or not it is there after you have reached it? That beginning rectal cancers can be detected *only* by seeing them through a proctoscope is a most difficult point to put across. But until it is put across, very few early rectal cancers will be found.

Digital rectal examination is helpful in the prompt detection of large rectal cancers, but is of essentially *no* value in the detection of the early asymptomatic curable rectal cancer.

CALVIN T. KLOPP, M.D.

Washington, D. C., March 1, 1960

To the Editor:

The Cancer Page in the February issue of the Medical Annals was aimed at reminding the physician that digital examination of the rectum was a sound and rewarding procedure. The illustration does not express nor was there any intent to imply that "the finger" was the only or all-conclusive investigative means of examining the rectum, as the merits of proctoscopic examination are likewise well established.

We agree with Dr. Klopp that the proctoscope is the best means of detecting small early rectal cancers. If the physician can't reach or feel a lesion it should move him to exclude anything smaller by the visual approach, namely, proctoscopic examination.

At some future time we may attempt to point out the merits of proctoscopic and sigmoidoscopic examination, but, as all illustrations limp to some degree or other, no one single reminder will convey all the examinations necessary to rule out any particular entity or disease.

Thank you for letting me read Dr. Klopp's comments.

Sincerely yours,
Alfred A. J. Den, M.D.
Chairman, Physicians' Committee, D. C. Division, American Cancer Society

Washington, D. C., March 11, 1960

To the Editor:

Dr. Calvin Klopp's letter of criticism of the American Cancer Society's page (Washington Division), which appeared in the February issue of the Medical Annals, is entirely out of focus. The page to which he referred is strictly an orthodox advertising gimmick to call attention to the printed matter contained within the box at the bottom of the page.

Nowhere in this page is it stated or implied that the rectal finger should replace the proctoscope or that the tissue biopsy in the diagnosis of early cancer be abandoned. Either Dr. Klopp failed to read the print contained in the box at the bottom of the page, or the message depicted by this entire page was too weak to merit attention.

When this page was constructed it was hoped that physicians noticing the hand and reading the statement would be sufficiently curious to send for the monograph referred to in the print within the box. Criticism is easy; guidance is difficult.

Very truly yours,
J. Keith Cromer, M.D.
Chairman, Professional Educational Committee, D. C. Division, American Cancer Society

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interest of our readers and as space permits. Physicians are urged to submit reviews of additional books which, in their opinion, merit comment.

Clinical Obstetrics and Gynecology. A Quarterly Book Series. Vol. 2, No. 4. Cesarean Section, edited by Edwin J. DeCosta, M.D. Advances in Gynecologic Surgery, edited by S. B. Gusberg, M.D. Price, $18.00 subscription for 4 consecutive numbers. Pp. 937–1228. New York: Hoeber-Harper, December 1959.

Medical Department, United States Army: Surgery in World War II. Neurosurgery, Volume II. Colonel John Boyd Coates, Jr., M. C., Editor-in-Chief; R. Glen Spurling, M.D., and Barnes Woodhall, M.D., Editors for Neurosurgery; Elizabeth M. McFetridge, M. A., Associate Editor. Prepared and published under the direction of Major General S. B. Hays, The Surgeon General, United States Army. Price, $7.00. Pp. 705. Washington 25, D. C.: Superintendent of Documents, U. S. Government Printing Office, 1959.

Current Therapy—1960. Latest Approved Methods of Treatment for the Practicing Physician. Edited by Howard F. Conn, M.D., with 12 consulting editors. Price, $12.00. Pp. 808. Philadelphia: Saunders, 1960.

Christopher's Textbook of Surgery, 7th ed. Edited by Loyal Davis, M.D., Chairman of the Department of Surgery, Northwestern University Medical School. Price, $17.00. Pp. 1551, with 1597 illustrations on 810 figures. Philadelphia: Saunders, 1960.

Textbook of Otolaryngology. David D. DeWeese, M.D., Clinical Professor of Otolaryngology, University of Oregon Medical School, Portland, Oregon, and William H. Saunders, M.D., Associate Professor of Otolaryngology, The Ohio State University College of Medicine, Columbus, Ohio. Price, $8.75. Pp. 464, with 354 illustrations. St. Louis: Mosby, 1960.

Encyclopedia of Medical Syndromes. Robert H. Durham, M.D., F.A.C.P., Physician-in-charge, Division of General Medicine, Henry Ford Hospital, Detroit. Foreword by T. R. Harrison, M.D., Professor and

Chairman, Department of Medicine, Medical College of Alabama, Birmingham. Price, $13.50. Pp. 628. New York: Hoeber-Harper, 1960.

The Cigarette Habit: A Scientific Cure. ARTHUR KING. Price, $2.00. Pp. 96. Garden City, N. Y.: Doubleday, 1959.

The Reluctant Surgeon. A Biography of John Hunter. JOHN KOBLER. Price, $4.95. Pp. 359. Garden City, N. Y.: Doubleday, 1960.

Your Heart: A Handbook for Laymen. H. M. MARVIN, M.D., Associate Clinical Professor of Medicine, Yale University School of Medicine; Past President, American Heart Association; Former Member, National Advisory Heart Council (U. S. Public Health Service). Price, $4.50. Pp. 335. Garden City, N.Y.: Doubleday, 1960.

Drugs of Choice 1960–1961. WALTER MODELL, M.D., Editor; Director of Clinical Pharmacology and Associate Professor of Pharmacology, Cornell University Medical College; Attending Physician, New York Veterans Administration Hospital; Associate Visiting Physician, Bellevue Hospital; Member, Poison Control Advisory Board of New York City; Member, Revision Committee, United States Pharmacopeia XVI; Editor, *Clinical Pharmacology & Therapeutics.* Price, $13.50. Pp. 958. St. Louis: Mosby, 1960.

Mosquitoes of Medical Importance. Agriculture Handbook No. 152, Agricultural Research Service, U. S. Department of Agriculture. Price, buckram, $2.50. Pp. 158. Washington 25, D. C.: Superintendent of Documents, U. S. Government Printing Office, July 1959.

New and Nonofficial Drugs. An annual compilation of available information on drugs, including their therapeutic, prophylactic and diagnostic status, as evaluated by the Council on Drugs of the American Medical Association. Price, $3.35. Pp. 768. Philadelphia: Lippincott, 1960.

Smoking and Health. ALTON OCHSNER, M.D. Price, $3.00. Pp. 108. New York: Julian Messner, Inc., 1959.

The Teen-Age Years—A Medical Guide for Young People and Their Parents. ARTHUR ROTH, M.D. Price, $3.95. Pp. 288. Garden City, N. Y.: Doubleday, 1960.

A Traveler's Guide to Good Health. COLTER RULE, M.D. Price, $3.95. Pp. 266. New York: Doubleday, 1960.

Doctor Strand. BORIS SOKOLOFF. Price, $3.50. Pp. 205. New York: Vantage, 1960.

A Practical Guide for General Surgical Management. JULIAN A. STERLING, M.D., Sc.D., F.A.A.A.S., F.A.C.G., F.A.C.S., F.I.C.S., et al; Diplomate, American Board of Surgery; Assistant Professor of Surgery, Graduate School of Medicine, University of Pennsylvania; Senior Attending Surgeon, Albert Einstein Medical Center; Chief Surgeon, Psychiatric Hospital, Philadelphia. Foreword by Herbert R. Hawthorne, M.D. Price, $3.00. Pp. 67. New York: Vantage Press, 1959.

Transactions of Sixth Annual Meeting of the Inter-Society Cytology Council, held at the Statler Hotel, New York City, November 13, 14 and 15, 1958. Pp. 275. New York: American Cancer Society, 1960.

A Doctor Enjoys Sherlock Holmes. EDWARD J. VAN LIERE, M.D. Price, $3.00. Pp. 141. New York: Vantage Press, 1959.

BERNARD SEMPLE FRENCH, A.B., M.D.

(1891–1960)

Dr. Bernard S. French, retired Washington psychiatrist, died, February 8, 1960, at his home, 2012 R Street, N.W., after a long illness.

Born in Vicksburg, Mississippi, February 12, 1891, Dr. French came to Washington in 1918 after attending the University of Denver. He graduated from Catholic University in 1919, and then enrolled at Johns Hopkins University for medical study, receiving his degree in 1923.

Dr. French taught pharmacology at Cornell Medical School in New York in 1926 and 1927. The next three years he was resident physician at the Glen Springs Sanitarium in Watkins Glen, N.Y. He returned to Washington to practice in 1931, and served on the dispensary staff of Providence Hospital and on the staff of its Clinic for Mental and Nervous Diseases. From 1933 to 1939 he was a mental commissioner for the District of Columbia. During World War II he was a psychiatric examiner at Fort Myer.

Dr. French was elected to Active membership in the Medical Society of the District of Columbia in

1935. He also was a member of the American Medical Association.

Surviving him are his wife, Mrs. Sallye Key French, and a sister, Mrs. Annie McIntyre, both of the home address.

JOSEPH MICHAEL BARKER, B.S., M.S., M.D., F.A.C.P.

(1910–1960)

Dr. Joseph M. Barker, cardiologist and a former resident of Washington, D.C., died suddenly, January 12, 1960, while en route to Arlington Hospital. He resided in Beverly Hills, California, and was in the East on a visit to his mother, Mrs. Daisy Barker, who lives at 209 North Trenton Street, Arlington, Va.

Dr. Barker was a native Washingtonian, born May 16, 1910, to the late Presley M. Barker and Mrs. Barker. He held three degrees from Georgetown University, Bachelor of Science (1933), Master of Science (1934), and Doctor of Medicine (1939). The latter he received *summa cum laude*.

After serving as intern, resident, and Fellow in Medicine at Georgetown Hospital, Dr. Barker enlisted in the Medical Corps of the Army during World War II, and saw action in the North African campaign. After his discharge in 1943 he was awarded a Fellowship by the American College of Physicians and studied under Dr. Frank N. Wilson at the University of Michigan, where he began in earnest his research work in cardiology.

Dr. Barker returned to the Washington area in 1947 and was associated with the Yater Clinic as cardiologist until 1954. While with the Clinic he was Associate Professor of Clinical Medicine and Director of the Heart Station at the Georgetown University Medical Center. He was consultant in cardiology to D. C. General Hospital and Arlington Hospital.

Dr. Barker was a diplomate of the American Board of Internal Medicine and a Fellow of the American College of Physicians. He was an Active member of the Medical Society of the District of Columbia from 1948 until 1953. At the time of his death he was a member of the Los Angeles County (Calif.) Medical Association and Associate Professor of Cardiology at the University of California at Los Angeles. He was a member of the American Medical Association, the American Heart Association, and the Georgetown Clinical Society.

Dr. Barker was the author of a medical textbook, "The Unipolar Electrocardiogram," and contributed a number of articles to the medical literature, including several which appeared in the MEDICAL ANNALS OF THE DISTRICT OF COLUMBIA.

In addition to his mother, Dr. Barker is survived by his wife, Mrs. Jane Barker, and 4 children, Christina, Joseph, Michael, and Mark. He also leaves 3 sisters, Mrs. Mary McMullin, 3616 Yuma Street, N.W.; Mrs. Katherine Shupe, 402 George Mason Drive, North Arlington, Va., and Mrs. Margaret Jaromsock, of San Diego, Calif.

ELLIOTT MUSE CAMPBELL, M.D.

(1894–1960)

Dr. Elliott M. Campbell, a Washington surgeon who retired 20 years ago, died January 28, 1960, in Easton (Md.) Memorial Hospital. His home was in Bellevue, Md.

Dr. Campbell was born in Fredericksburg, Va., December 24, 1894. He graduated from George Washington University School of Medicine in 1919 and began the practice of medicine in the District of Columbia the following year.

In Washington he maintained offices in his home at 3109 16th Street, N.W. for 20 years. He served on the staff of the old Emergency Hospital for several years.

Many physicians will remember him as an avid sailor who was caught at sea for two days aboard his 51-foot schooner *Bluejacket* in an Atlantic hurricane in August 1933. His own account of the near-disaster was published in *Yachting Magazine's* 20-year collection of best stories.

Dr. Campbell was an Active member of the Medical Society of the District of Columbia from 1921 until he gave up his practice in 1939.

He leaves his wife, Mrs. Bessie Campbell, and a daughter, Mrs. Samuel C. King, of Alexandria.

Clinical Research at NIH—Masur

(*Continued from page 201*)

cated a desire to receive regularly the annually revised "Current Clinical Studies and Patient Referral Procedures" and occasional special pamphlets and announcements describing new studies. In addition, reprints of selected proceedings of our regular Clinical Staff Conferences are sent to physicians on the list several times yearly.

During the fiscal year 1959 about 3,400 patients were admitted to the Clinical Center. Physicians in states other than Virginia, Maryland, and the District of Columbia referred about 44 per cent of these. Approximately 16 per cent of all patients admitted during the year were referred by physicians practicing in the District of Columbia.

An important function of any major medical center is to aid in the interchange of new knowledge with the medical community. NIH feels this responsibility keenly and has undertaken a number of activities in this direction.

This issue of the ANNALS of the Medical Society of the District of Columbia is an important contribution to this end. Another is the open invitation herewith extended to all physicians in this area to participate in our regular Clinical Staff Conferences, which are held monthly from September through June. For the convenience of our area colleagues 2 of these meetings each year are held in the evening. We shall be glad to mail any physician advance announcements of these regular and evening meetings as well as our reprints and descriptions of the constantly changing diagnostic requirements for referred patients. In addition, requests to attend regular and grand rounds of the various Institutes will be welcomed by their respective Clinical Directors.

Prophylaxis of Viral Infections—Owen

(*Continued from page 208*)

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Carcinoma of Thyroid Gland—Robinson and Andrews

(*Continued from page 213*)

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Staphylococcal Types in Area Hospitals—Marsh and Hicklin

(*Continued from page 217*)

SUMMARY

Coagulase-positive *Staphylococcus aureus* phage type 80/81 has been shown to be the predominant strain of this organism in hospitals of the Maryland, District of Columbia and Virginia area between January 1957 and March 1958. Its occurrence was closely related to serious morbidity, as previously reported in other studies in this country.

Bacteriophage typing permits identification of this "epidemic" strain and other miscellaneous strains responsible for hospital outbreaks and provides a means of tracing the paths of infection.

Measures of control have been discussed with emphasis on education of personnel.

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Enzymatic Tests in Liver Disease—Fox

(*Continued from page 221*)

cellular damage. Since no enzymatic test for evaluation of functioning hepatic parenchyma has yet proved satisfactory, reliance still must be placed on dye excretion technics. The enzymatic tests should be used as correlative evidence with the standard nonenzymatic tests in the differential diagnosis of hepatic disease. Selection among the large number of tests which often duplicate each other becomes of vital interest to the clinician, the laboratory, and the patient.

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On the Lighter Side—Kadan

(*Continued from page 242*)

wake up and go home. I somehow expressed my appreciation to my hosts, adjusted somebody else's overcoat to my frame, and descended on the elevator. My car was parked one block away. I hailed a passing taxicab and directed the driver to my address.

Once in bed I felt wide awake, and after tossing and counting sheep for hours in an effort to woo Morpheus, I finally dozed off. Morning came and I awoke to a headache and a thirst. My mouth tasted like the alleged inside of a motorman's glove. I was ill and I remained in bed until noon. I resolved that I would attend no more dinner parties. My nervous system and digestion had been upset, my calorie program violated, my cholesterol percentage upped, and my capacity for work lowered. Hereafter I would spend my leisure time with books, music, educational lectures, cards and the theater.

As for dinner parties, I decided to adopt the sentiments of the old woman who applied for a divorce. The judge obtained the facts of the case, which included 40 years of marriage to a hard-working, law-abiding, faithful husband. The judge asked her why she was seeking a divorce after 40 years of marriage. She answered: "Judge, enough is enough!" I had had enough of dinner parties.

The mail has just arrived. Here is an invitation to a dinner party two weeks hence. I just mailed my acceptance.

James A. Gannon, Sr., M.D.

...*Pathibamate*® *400* *200*

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greater flexibility in the control of tension, hypermotility and excessive secretion in gastrointestinal dysfunctions

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Two dosage strengths—PATHIBAMATE-400 and PATHIBAMATE-200 facilitate individualization of treatment in respect to both the degree of tension and associated G.I. sequelae, as well as the response of different patients to the component drugs.

Supplied: **PATHIBAMATE-400**—Each tablet (yellow, 1/2-scored) contains meprobamate, 400 mg.; PATHILON tridihexethyl chloride, 25 mg.
PATHIBAMATE-200—Each tablet (yellow, coated) contains meprobamate, 200 mg.; PATHILON tridihexethyl chloride, 25 mg.

Administration and Dosage: **PATHIBAMATE-400**—1 tablet three times a day at mealtime and 2 tablets at bedtime.
PATHIBAMATE-200—1 or 2 tablets three times a day at mealtime and 2 tablets at bedtime.
Adjust to patient response.

Contraindications: glaucoma; pyloric obstruction, and obstruction of the urinary bladder neck.

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Book Reviews

Pyelonephritis. Fletcher H. Colby, M.D. Price, $7.50. Pp. 214, with 95 illustrations. Baltimore: Williams & Wilkins, 1959.

This is a well illustrated monograph dealing with a subject of importance to all fields of medicine. The author states in his preface that he treats the subject of pyelonephritis from the standpoint of his own specialty, urology. For this reason his data are related primarily to those cases most frequently seen in a urologic practice, that is, those showing evidence of lower tract obstruction.

The text is well organized, with an historical introduction and statement of the problem as the first chapter. This is followed by a concise review of the embryology, anatomy and physiology of the kidney. The incidence, etiology and treatment of acute and chronic pyelonephritis, with a discussion of some pertinent data on the use of antibiotics and anti-infectives in the urinary tract, are detailed in separate chapters. The remaining chapters review the problem of pyelonephritis in certain specific areas, including pediatrics, diabetes mellitus, pregnancy and hypertension. The final chapter deals with the relationship of the urologist and urologic instrumentation of pyelonephritis and emphasizes to a degree the need for caution in the use of instrumentation of the urinary tract. The author feels that the use of well chosen procedures will give valuable information of a diagnostic nature without subjecting the patient to increased risk of infection.

The text is replete with illustrative case histories and excellent photographs of pathologic material and pertinent X-ray studies of the lesions discussed. This monograph should be, as the author suggests, valuable reading material for students and physicians who are not well versed in the modern concepts of pyelonephritis as a medical problem.

Norman C. Kramer, M.D.

A Traveler's Guide to Good Health. Colter Rule, M.D. Price, $3.95. Pp. 266. New York: Doubleday, 1960.

Dr. Rule has written not only an informative and helpful guide for persons traveling abroad, but a very interesting and often humorous one. There is commonsense advice on such subjects as water, foreign food, digestive upsets, foot comfort, proper clothing, head colds and overeating. In addition, there are recommendations on traveling with children and pets. The chapter on "The Psychology of Travel," this reviewer found particularly rewarding. English translations of common medical terms to French, German, Italian and Spanish should prove valuable to the traveler.

This book should be in the hands of every person who contemplates traveling abroad.

T. W.

The Emergency Syndromes in Pediatric Practice. Alfred J. Vignec, M.D. Price, $9.00. Pp. 382, illustrated. New York: Landsberger, 1959.

The author states in his preface that the aim of the book is to assist the physician who encounters problems in infants and children that require immediate attention and treatment. He comments that there are cases that must not only be diagnosed but, as illogical as it seems, require treatment even before an accurate diagnosis is made. The intention of the author is to help physicians in these diagnostic dilemmas, and this objective has been well fulfilled.

The book is well written, authoritative, and manages to be easily read. The style is somewhat reminiscent of the British medical writers in *Lancet*, who manage to combine wisdom with an accomplished literary style.

In the true sense it is not a textbook, nor can it be compared to the various pocket aids which list symptoms and diseases. It can be best described as a monograph on the more acute conditions encountered in pediatrics. The occasional lapse into broader fields does not deter from the effect.

The chapters encompass the various bodily systems and their acute disease states. A further refinement is the division into subgroupings of diseases more common to the neonate, infant, and older child.

In addition, there are very good chapters on metabolic disorders and on the steroids. The only criticism of the chapters on prematures, poisons, and allergies is that the subjects are too broad to be encompassed by the scope of this book. However, they do serve as good overall reviews of these areas.

Because of the nature of the work, little attempt has been made to delve into controversial aspects of therapy of some of these conditions. The author utilizes his broad experience and outlines the treatments that have been employed successfully in the institutions with which he has been associated.

This book should prove to be interesting and helpful to all who treat children. House officers may do well to consider it as a most useful therapeutic and diagnostic aid.

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CHEMOTHERAPY OF CHILDHOOD TUMORS

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IN DISCUSSING specific treatment of pediatric solid tumors certain generalities concerning these tumors, particularly where they differ from adult solid tumors, should be considered.

Whereas only 1.7 per cent of all malignant neoplastic disease occurs in patients less than 15 years old, it is the leading cause of death in patients between 3 and 14 years of age.

The peak incidence for the majority of childhood neoplasms occurs during the first 5 years of life. This probably is a reflection of the embryonal nature of the majority of childhood neoplasms.

In general, the growth rate of tumors is greater and the survival shorter in children than in adults.

The major sites of origin of pediatric tumors include the central and sympathetic nervous systems (neuroblastoma), reticuloendothelial system (acute leukemia), kidney (Wilms' tumor), and soft tissue and bone (figure 1). The epithelial

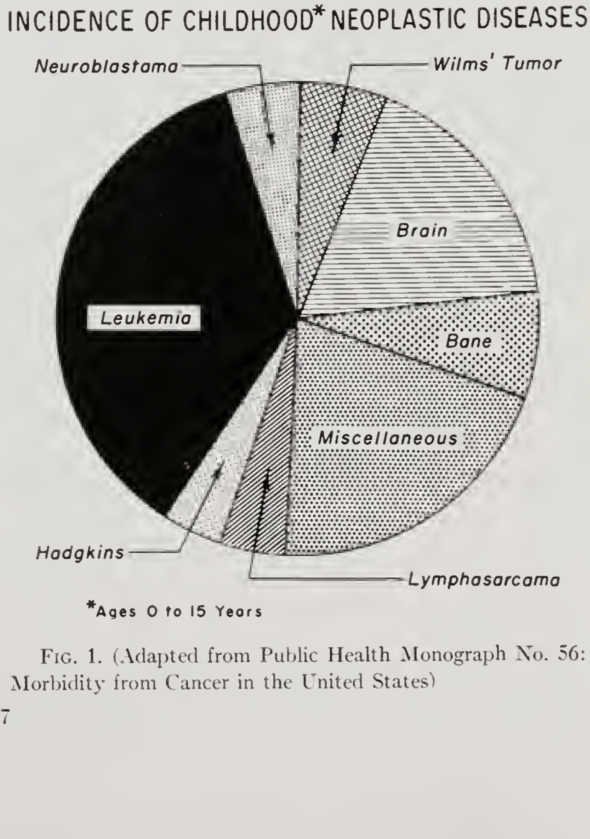

FIG. 1. (Adapted from Public Health Monograph No. 56: Morbidity from Cancer in the United States)

tumors which make up the vast majority of adult cancers are exceedingly rare in children.

The embryonal nature and the high degree of anaplasia that exist in many childhood tumors results not infrequently in difficulties in the histologic identification of these tumors. In addition, many of the pathologic hallmarks of adult cancer do not apply to childhood neoplasia. Thus, highly malignant Wilms' tumors and neuroblastomas are frequently encapsulated. Mitotic figures may be numerous in childhood melanomas and infant hemangiomas, yet they are benign in behavior.

The natural history of certain childhood solid tumors is quite variable and makes for difficulties in evaluating response to therapy. In fact, well documented, spontaneous cures occur in a small percentage of neuroblastomas in patients less than 2 years of age.

Finally, and more directly relevant to this discussion, the pediatric solid tumors are, in general, much more responsive to chemotherapeutic agents than are adult solid tumors. Thus, as discussed below, the 2 major pediatric solid tumors, Wilms' and neuroblastomas, respond to some extent to drug therapy. In acute leukemia, a disease with peak incidences both in early and late life, the response to drug therapy is much better in children.

The major childhood solid tumors and their chemotherapeutic management will be considered separately.

WILMS' TUMOR

Radical nephrectomy followed by radiation therapy is the treatment of choice. Though 2-year survival rates as high as 47 per cent have been reported,[1] the 2-year survival rate accumulated from a large number of sources is 20 per cent and the 10-year survival rate 5 per cent.[2] Radiation therapy may temporarily control pulmonary metastases.

When the above therapeutic measures fail, the use of actinomycin D may be considered. This antibiotic of known structure[3] inhibits bacterial growth,[4] produces cytotoxic changes in neoplastic cells in tissue culture,[5] and inhibits several animal tumors.[6,7,8] Significant objective improvement occurs in 10 to 40 per cent of patients with Wilms' tumor treated with actinomycin D.[9-12] The following case illustrates a good response to actinomycin D.

A 6-year-old girl (patient no. 02-17-28) had a left radical nephrectomy in March, 1958 followed by X-radiation (3,000 r tumor dose) to the left side of the abdomen. In October, 1958 further abdominal X-radiation was given for a recurrent abdominal mass. By February 26, 1959 both abdominal and pulmonary masses (figure 2) were present, and the child was placed on actinomycin D therapy, 75 micrograms per Kg. intravenously in 4 consecutive days. By March 26 the abdominal mass was much reduced in size and the lung lesion had almost disappeared (figure 3). However, by April 25 both lesions were again enlarging. The patient subsequently received combination X-radiation and actinomycin D therapy.

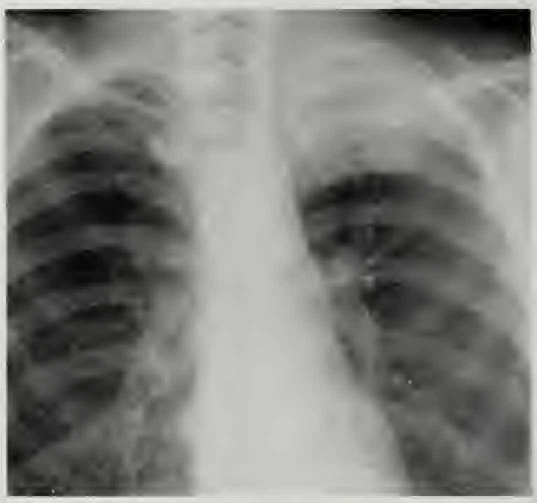

FIG. 2. Patient 02-17-28. Pulmonary metastases (Wilms' tumor), February 25, 1959.

In general, though the degree of tumor dissolution may be marked, the duration of improvement is usually not more than 6 to 8 weeks. Repeated courses in the same patient result in decreased response and perhaps in decreased drug tolerance. As in the case of this patient, actinomycin D is given daily, intravenously in 4 or 5

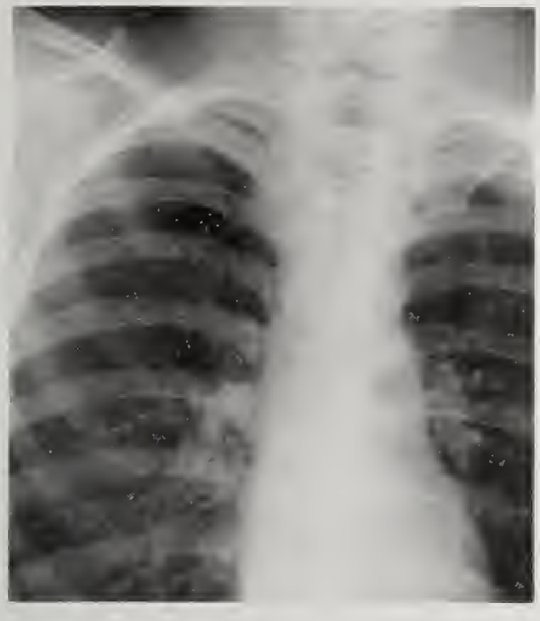

FIG. 3. Patient 02-17-28, March 26, 1959, after actinomycin D therapy.

day courses to a total dose of 75 micrograms per Kg. of body weight. Courses may be repeated if response is incomplete or when relapse occurs, provided signs of toxicity have disappeared. The toxicity of actinomycin D includes bone marrow depression, nausea and vomiting, usually within 24 hours of administration, stomatitis, occasionally diarrhea, and rarely alopecia. The reaction of normal tissues to X-radiation is accentuated. Local necrosis may result if extravasation into the tissues occurs. Renal failure may markedly enhance toxicity.

It is doubtful that actinomycin D significantly improves survival in patients with Wilms' tumor. This, plus the fact that the responses induced are short, limits the practical value of this mode of therapy.

It is possible that different schedules of administration of actinomycin D may improve the therapeutic index. Also, there are several observations that suggest that actinomycin D and X-radiation may act synergistically and that the drug may render a resistant lesion radiosensitive.[11, 13, 14] Studies designed to confirm and extend these observations are under way.

NEUROBLASTOMA

Radical resection, with or without postoperative X-radiation, is the treatment of choice for patients whose disease is limited to the abdomen. Even in patients with more extensive disease, resection of the primary lesion with radiation therapy of metastatic lesions, provided these are not extensive, should be undertaken. A number of patients with hepatic metastases so treated and even a few with localized skeletal metastases have recovered. Before considering chemotherapy, it is well to emphasize the problems of evaluating the effect of therapy. The disease is quite variable, the direct and radiologic mensuration of tumor size is often difficult, and spontaneous improvement and even cures occur. Sixty per cent of patients with neuroblastoma die within 6 months and 90 per cent within 12 months of the symptomatic onset of their disease. Age has a marked effect on the prognosis in that children with symptomatic onset before the age of 2 years have a better prognosis.

Objective antitumor effect may be induced in patients with neuroblastoma by several of the alkylating agents. Nitrogen mustard, nitromin, triethylene melamine (TEM), triethylene phosphoramide (TEPA), and chlorambucil have been reported to be effective in up to 40 per cent of patients.[11, 15, 16] Bone pain, a major problem in this disease, is frequently relieved by therapy with alkylating agents; however, the responses tend to be brief and incomplete, and resistance develops to subsequent courses of therapy. The major toxicity of all of these compounds is bone marrow depression. No data are available as to the effect of such therapy on survival. In view of the problems in evaluating response in this disease, a controlled study of the effect of alkylating agents seems warranted.

Vitamin B_{12} has been reported to induce tumor regression in patients with neuroblastoma.[17] Rarely, responses may occur with the use of actinomycin D[10] and folic acid antagonists.[16] These observations require extension and confirmation.

LYMPHOMA

About 10 per cent of cases of Hodgkin's disease occur in patients under the age of 10 years. Recent evidence suggests that the natural history of the disease in children is similar to that in adults.[18] Radiation therapy and the use of alkylating agents, as with adults, are the most effective forms of therapy. When refractoriness occurs, large doses of corticosteroids may prove helpful. The place of the actinomycins in the treatment of Hodgkin's disease remains controversial.[19, 20]

Therapy for childhood lymphosarcoma is essentially the same as for Hodgkin's disease. Twenty to 50 per cent of children with lymphosarcoma develop acute lymphatic leukemia, which, in terms of response to antimetabolites and corticosteroids, is similar to that of primary childhood leukemia.

EMBRYONAL RHABDOMYOSARCOMA (INCLUDING SARCOMA BOTRYOIDES)

Radical surgical excision is indicated for this rare tumor, if blood-born metastases have not occurred. The median survival for all cases is less than 1 year.

Up to 50 per cent of patients with embryonal rhabdomyosarcoma show objective response to actinomycin D.[9, 11, 12, 14] The degree of tumor regression may be marked, as illustrated by the following case.

A 15-year-old boy (patient no. 00-95-11) had extensive postoperative local recurrences of an embryonal rhabdomyosarcoma in the left side of the chest wall with associated bloody pleural effusion (figure 4). On June 17, 1958 actinomycin D therapy was started, 60 micrograms per Kg. intravenously in a 4-day period. Within 1 week the chest lesion was no longer palpable and the pleural effusion rapidly resolved. The local lesion recurred in 3 weeks. The administration of actinomycin D was repeated. Again the tumor decreased in size for 3 weeks. Actinomycin D was given the third time without effect on the tumor, and the patient died soon thereafter.

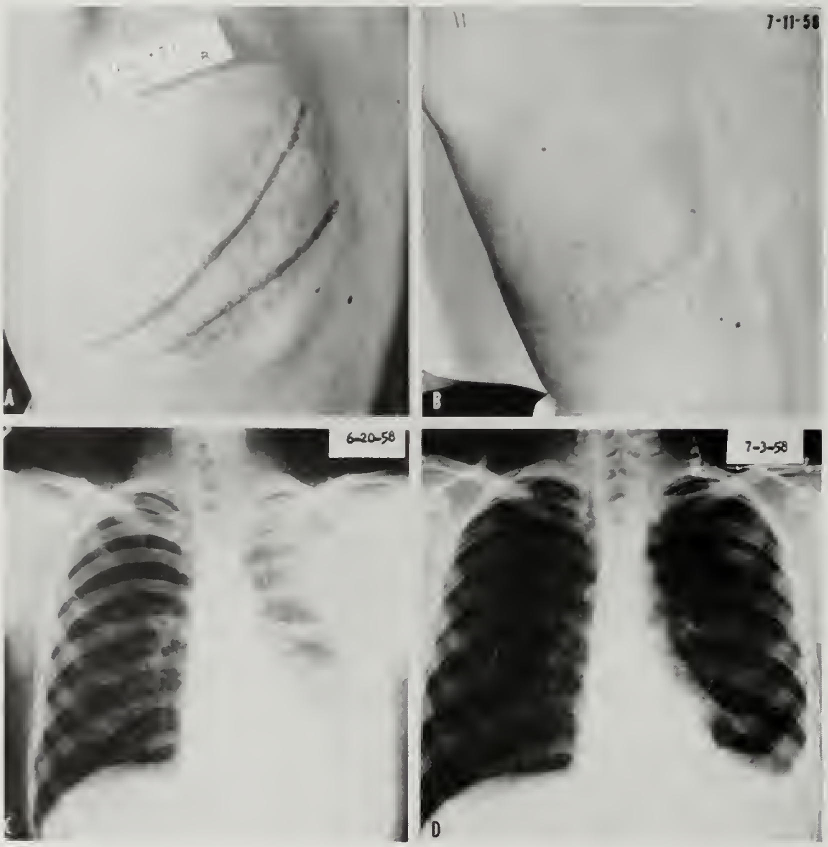

FIG. 4. Patient 00-95-11, embryonal rhabdomyosarcoma: (A) left chest wall tumor at start of actinomycin D treatment; (B) disappearance of tumor 24 days after therapy; (C) left pleural effusion which reabsorbed, except for slight blunting of the costophrenic angle after actinomycin D therapy (D).

As in this patient, response to the drug tends to be brief, and refractoriness to subsequent courses develops. As with other tumors possible synergism between radiation therapy and actinomycin D requires further investigation.

Other Tumors

Triethylene melamine (TEM), in combination with radiation therapy, has proven beneficial in patients with retinoblastomas.[21]

Neoplasms of the brain and bone are relatively common in children (figure 1). Except for the fact that they may rarely respond to actinomycin D, these tumors have not yielded to chemotherapeutic efforts.

The reasons for the comparatively greater sensitivity of childhood solid tumors remain obscure. The comparatively rapid growth of childhood tumors as compared to adult tumors may be partially responsible, although for any given type of childhood tumor pretreatment growth rate does not correlate well with response to chemotherapy. The possibility exists that host factors such as growth, endocrine, immaturity, and differences in natural or acquired defense mechanisms may play a role. It is our opinion that the major factor is the embryonal nature of certain childhood tumors. Thus, aside from the lymphoma-leukemia group, the childhood tumors that respond most frequently and markedly are those of embryonal origin (Wilms' and embryonal rhabdomyosarcoma). An adult solid tumor that responds frequently and markedly to chemotherapy is the choriocarcinoma which is of trophoblastic origin.[22] The significance of the fact that tumors of both trophoblastic and embryonal origin are sensitive to chemotherapeutic agents remains speculative.

Conclusion

Though of limited practical value at the present time, it is apparent that important progress has been made in the chemotherapy of childhood solid tumors. Research in this area is being vigorously pursued and further progress may be anticipated.

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TUBERCULIN SKIN TESTING IN PEDIATRICS*

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GREAT PROGRESS has been made in the past quarter century in the treatment of tuberculosis. The discovery of potent antituberculin drugs and advances in thoracic surgery have brought about a marked decline in the mortality rate from tuberculosis. Although much has been achieved in preventing death from tuberculosis, not nearly as much has been accomplished in preventing contraction of the disease. It has been recently shown that there is a relative stability in the annual number of newly reported cases of tuberculosis in contrast to the dramatic decline in the mortality rate from tuberculosis that has occurred during the last two decades. New cases today in the United States have been reported at the rate of 100,000 per year. These do not include, however, a probably large number of unreported cases. In the past, efforts to control tuberculosis were aimed primarily at isolation and treatment of patients who were contagious, even advanced in the disease, at the time of detection.

Tuberculosis control, as in the control of most diseases, is predicated on the fundamental concept of case-finding. Besides being found, the cases must be found in an early stage in order to provide an opportunity to cure the patient and especially to limit the spread of the disease.

Actually the only method by which a positive diagnosis of tuberculosis can be made is by a demonstration of live tubercle bacilli in the sputum. There are, however, a number of diagnostic tools which are presumptive in character, such as chest X-ray films and tuberculin skin tests. The roentgenologist can make only a presumptive diagnosis. Other tests must be performed to collaborate his impressions. Although the roentgenographic examination of the chest is very valuable for finding chronic pulmonary tuberculosis in adults, it is a poor method for detecting primary tuberculosis in children, because primary tuberculosis does not show radiographic manifestations in the majority of patients. The primary focus is usually so small and the hilar lymph nodes so buried in the mediastinal shadow that they are not visualized unless they happen to assume an unusually large size or have developed complications such as atelectasis or bronchogenic spread. The majority of cases, and especially the earlier cases which are more amenable to surgery, would be missed if X-ray examination were the only method relied upon. The current concept of ideal control of tuberculosis is aimed primarily on the detection of disease as early as possible, preferably while it is still in the primary stage, prior to the development of gross involvement and tissue destruction made evident by clinical illness, roentgenologic changes, or demonstration of *Mycobacterium tuberculosis* in body fluids. In instances in which the lesions are so large or so situated as to allow their visualization, serial radiographic examination is a valuable means of observing the progress of the local disease.

Another important tool employed as a diagnostic procedure is the tuberculin test. This test affords the opportunity of detecting tuberculosis in some of its earliest stages. In this procedure tuberculin PPD (purified protein derivative) is preferred to old tuberculin because of its stand-

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ardized potency. At present there are 3 strengths available. These are the first, intermediate, and second strengths. The first strength tuberculin PPD is 0.00002 mg. in 1 ml. of solution, which is known as 1 test unit. The intermediate strength has an equivalent of 5 test units per ml. The second strength, which has an equivalent of 250 test units per ml., is rarely employed in clinical use and possibly could be eliminated except for research and epidemiologic studies. The use of intermediate strength makes it possible to complete the tuberculin test with a single injection. A study was done at Children's Convalescent Hospital in Washington, D. C. on children convalescing from a number of ailments such as malnutrition, rheumatic fever, encephalitis, nephritis, and many other disorders which require long-term professional care. An intermediate strength single injection of PPD was administered to all patients 1 month to 5 years of age. The solution was freshly prepared, and the test was read 48 to 72 hours after injection. An indurated area of at least 5 mm. in diameter was considered a positive reaction. Erythema without induration was interpreted as a negative test. Indurations of less than 10 mm. in diameter are difficult to interpret, and in such cases it is recommended that the test be repeated in 2 to 4 weeks, or, as an alternative, to administer second strength PPD.

Although the Vollmer's patch test is convenient to use because it is without the necessity of employing properly sterilized equipment and is free of the difficulty of injecting small children, it is subject to many errors. False negative and false positive reactions are known to occur. Since the tuberculin is applied to the surface of unbroken skin, the absorbed amount varies because of such variable elements as excessive perspiration, oily skin and premature detachment of the patch from the applied area. Because of the discrepancies with this type of tuberculin testing the interdermal technic is replacing it even in large mass screening studies as in schools, camps and institutions.

The tuberculin test has been proved more valuable in the diagnosis of tuberculosis than roentgenography because:

1. It is the only test which will clearly separate those persons infected with tubercle bacilli from those not infected. It is assuming greater importance in detecting new cases because the number of negative reactors is rising. Recent changes in the epidemiologic pattern of tuberculosis have shown reductions in infection, morbidity and mortality rates, especially among the younger age groups. In 1937 50 per cent of 15-year-old children were tuberculin-positive, the rate for newly reported cases in the general population was about 87 for 100,000, and the mortality rate was 43.4 for 100,000. At present only 5 per cent of 15-year-old children give positive tuberculin skin tests, the rate for newly reported cases is about 40 for 100,000, and the mortality rate is 8.5 per 100,000. Evidence seems to indicate further decline in positive tuberculin tests in this age group.

A positive tuberculin reaction in an infant strongly indicates active tuberculosis because the child has not lived long enough to allow the infection to heal. The studies at Children's Convalescent Hospital were conducted during the year ending June, 1959 on children from all economic, social and racial statuses. These 150 children ranged from the age of 1 month to the age of 5 years and included an equal ratio of males and females. In this small but random sample only 2 positive tuberculin skin reactions resulted. One patient, a 3-year-old Negro girl, was subsequently shown by radiographic and further diagnostic studies to have active tuberculosis in a relatively early stage. The other positive tuberculin skin reaction was in a child admitted for convalescent follow-up care and with an admitting diagnosis of arrested or healed tuberculosis.

2. It enables the approximate date of infection to be determined by serial skin testing, thus providing a basis for further diagnostic procedures. Appropriate therapy may then be in-

stituted very early in the disease. Conversion from negative to positive reaction occurring in patients who continually gave negative reactions to periodic skin-testing indicates that an infection with tubercle bacilli has occurred recently. With such diagnosis at an early stage, other aids for preventing the spread of the disease may be employed.

The tuberculin (PPD) test serves also as a very important means of determining reactivity to tuberculin in unknown reactions in older patients. By identifying reactors, the test enables selection of those patients who should be studied further to determine if active contagious disease demanding immediate treatment is present.

In the younger age group serial testing is even of more importance since a very high percentage of negative reactions is anticipated and conversion from negative to positive reaction is of great significance in establishing the onset of the disease. Diagnosis at this stage allows for the use of chemoprophylaxis in preventing dissemination of the disease. I believe that at least yearly skin-testing procedures with tuberculin (PPD) should be done on all children, especially in the school-age group, if feasible. When evidence or suspicion of exposure to tuberculosis is present, even more frequent testing is advisable.

3. It excludes the diagnosis of tuberculosis. The tuberculin reaction is negative in all persons until the first infection with tubercle bacilli occurs. It turns positive in 1 to 3 months and usually remains positive throughout the remainder of life. A negative reaction almost conclusively means the absence of tuberculous infection, recent, past, widely disseminated, or mild in nature. False negative reactions occur but are very infrequent. These low levels of allergic reactivity may accompany old age, terminal disease, and other forms of active disease, such as chronic nonprogressive and acute progressive tuberculous lesions. After the patient converts to a definite positive tuberculin reaction further testing is no longer of value, and the person must be watched for the possible development of clinical tuberculosis by means of physical examinations, X-ray films, and other diagnostic procedures at appropriate intervals. A negative tuberculin test gives well over 99 per cent assurance that tuberculosis is not present. Thus, even though tuberculosis may be suspected on clinical grounds, a negative tuberculin (PPD) test will almost conclusively exclude tuberculosis and therefore is very helpful in the diagnosis of numerous other pulmonary conditions.

4. It reduces the risk involved in excessive exposure to radiation. Although roentgenologic examination is often necessary to determine and study tuberculous disease of the lungs, routine and sometimes needless X-ray films should be avoided. To reduce the use of roentgenologic examination in case-finding programs the tuberculin skin test can be employed as a first-step screening device. Then X-ray examination could be restricted only to those persons who give a positive reaction to the tuberculin (PPD) skin-testing. Radiation exposure, especially from X-ray films aimed specifically to demonstrate tuberculous lesions, is unnecessary in over two-thirds of the adult population since about two-thirds of adults are negative to skin-testing. In the younger population an even higher figure of the "routine" or periodic chest roentgenogram is unnecessary because of the very high percentage of tuberculin-negative children. Again one must be mindful that chest films cannot demonstrate microscopic infections which a tuberculin test can. The chest film alone possibly can be employed presently in high-incidence groups and in industry and the tuberculin test in schools and in groups having a low incidence of infection. However, it is anticipated that the tuberculin skin test will eventually replace X-ray screening procedures in all groups as the incidence of tuberculin negative skin reactions increases.

5. Tuberculin skin-testing also has an advantage over other basic screening procedures in economy and convenience. Simplicity of the

skin test eliminates the use of complicated equipment for diagnosis which is employed in roentgenography. There is no longer a need to burden radiology departments with mass routine chest X-ray films. It is now necessary to have them only when indicated. Administration of tuberculin (PPD) material is a simple procedure which can be employed quite efficiently in minimal time by professional hospital personnel or health officials in schools, camps, and other institutions.

The skin test used as a preliminary screening procedure is inexpensive and makes expensive case-finding methods unnecessary. In our small but typically representative case study at Children's Convalescent Hospital of children up to the age of 5 years it is estimated that less than one-seventh of the cost of routine chest films was expended.

It is evident that both the tuberculin test and the roentgenographic examination have great usefulness in diagnosing tuberculosis. The physician should employ each method whenever it is applicable.

The tuberculin (PPD) skin test is indispensable for use in infants and children, in schools, camps, institutions, and in any group in which there is a low percentage of infected persons. The test reduces radiation exposure, is convenient, economical, and time-saving and requires minimal equipment and material. Appropriate use of both the tuberculin test and the X-ray examination is the best means for the diagnosis of tuberculosis. The following articles[1–19] are recommended for those interested in this subject.

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WHIPLASH INJURY—END-RESULTS IN 88 CASES

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ALTHOUGH the term "whiplash injury" is decried medically, it is one which has caught on and is unquestionably with us for a while despite its unfortunate emotional appeal. Many people injured in rear-end collisions have begun to seek this diagnosis, perhaps because their lawyers have found that a rebuttal is difficult and that it is often quite easy to secure a favorable settlement. Various studies have indicated that malingering and self-delusion have been only too frequently the real diagnosis.

The often quoted paper of Gotten[1] concerns a report of 100 patients interviewed after the settlement of litigation. He discovered that "many psychosomatic symptoms developed and were manifested in some way in 85 per cent of the cases." Frankel,[2] in referring to this group, states that it is impossible for him to believe that 85 per cent of any group could be conscious or unconscious malingerers and suggests that generalizations are dangerous and inaccurate. The Gotten paper, nevertheless, has caused the medical profession to look upon this injury with a suspicion which I have found to be justified.

This report considers 88 consecutive patients sent to me for evaluation prior to settlement of insurance claims. Eleven were referred for examination by attorneys for the plaintiff,[3] by their private physicians, and the remaining 74 by representatives of various insurance companies.

As in any type of injury, classification is a necessity prior to evaluation. In the classification outlined by Davis[3] all injuries to the neck are divided into 2 groups. One is the obvious, where the patient is unable to handle himself after the accident. This comprises such conditions as compression fractures, cord damage, paralysis, dislocation of the vertebrae, and obvious nerve injuries. There is no difficulty in the evaluation of such injuries, since, as Davis says, they are obvious. No cases in this series belong in this group.

It must be made clear at this time that many people who complain of whiplash injury do not have anything more than a temporary indisposition. They have no real injury to muscle, nerve, tendon or bone. Even though many of the cases in my series showed no organic findings, all were classified from the history into Davis' second, or obscure, group. To evaluate this "obscure group" one must correlate the physical, radiologic and neurologic abnormalities. Most of the patients show initial straightening of the spine in the lateral projection of X-ray films. Such straightening implies cervical sprain; however, it is possible for a patient to straighten his neck during the examination to produce the same radiologic picture. Neurologic testing on several occasions will, if consistent, furnish the data to classify these cases into the 7 syndromes of this group described by Davis:

1. Occipital, in which pain radiates up the neck to the occipital area (67 cases in this study).
2. The syndrome of the third and fourth cervical root, in which muscle spasm and neurologic abnormality may be present over the lateral angle of the neck (no cases in this study).
3. The syndrome of the fifth root, in which pain is present over the shoulder (2 cases).
4. The syndrome of the sixth root, in which pain is present over the radial side of the hand (9 cases).
5. The syndrome of the seventh root, in which the pain continues to the index and middle fingers (9 cases).

6. The precordial syndrome (no cases).
7. The syndrome of the long thoracic nerve (1 case).

Of the 88 cases reported, 15 patients had become free of symptoms prior to my examination, according to their statements. The findings were negative in this group. Forty-eight patients had various subjective symptoms without objective findings. These usually consisted of pain at the base of the neck, headaches of varying severity, and, in certain cases examined early, difficulty with abduction of the arms. One patient showed conversion anesthesia, and several patients had minimal diminution of pinprick sensations over various parts of the body, many of which were not consistent with anatomic nerve distribution.

Fourteen patients had subjective symptoms with objective findings. Of this group hypertrophic arthritis of a preëxisting nature was present in 2 cases (in neither of which was there any evidence other than temporary aggravation of the arthritic process). Nine patients showed definite muscle spasm with limitation and restriction of cervical motion. Two patients had difficulty in abducting their upper extremities. There was 1 recently healed fracture of the first cervical vertebra, and this patient was the only patient with objective findings who had no symptoms 4 months after the injury. There was 1 patient with cervical symptoms arising from an alleged whiplash injury which cleared within 90 days, leaving a fairly definite lumbar herniated intervertebral disc syndrome which might have been present prior to the injury which led to this examination. One patient, who was free of objective findings but had moderate subjective symptoms, committed suicide about 3 months after examination but prior to financial settlement.

When findings are consistent throughout several examinations, and if there is straightening of the normal neck curvature, one can say from an objective standpoint that there is evidence of injury. With such organic abnormalities it is not difficult to arrive at the extent of the injury. An estimation of the extent and permanency of the impairment can then be made by evaluating the gravity of the injury, preexisting conditions,[4] other complications, and the emotional attitude of the injured.

There exists in the minds of most of the whiplash cases that I have examined the feeling that, even though the patients are not suffering at the time, they may suffer in the future. I have learned to ask all patients claiming whiplash injuries 2 important questions: (1) How long was it after the accident before you saw a doctor? and (2) How did you happen to go to this doctor? Only too frequently the patient states that he first saw a doctor a month or more after the injury and often he chose that particular physician at the suggestion of his lawyer.

After the elimination of definite nerve or bone injury, one can generalize enough to say that 90 per cent of patients with the so-called whiplash injuries seen in the average examiner's office can be accurately assessed as being able to make a complete and total recovery within 6 weeks if legal settlement can be quickly obtained. Cases in which preëxisting organic abnormalities exist are more difficult to assess. There is also a group of injuries involving the Luschka joints which have been described recently and which must be considered.[2] One must make sure a traumatic arthritis is not present in this group and that the nerve roots and blood vessels in the vicinity of the injury show no evidence of abnormality. Thus, in effect, if one can rule out nerve injury, fracture, dislocation and arthritic changes, he may then be assured that permanent impairment of an organic nature will not ensue.

Since the conversion reactions are quite often seen in this injury the emotional aspects of these cases should be considered by all who have contact with these patients, especially the physician, the lawyer, and the insurance adjuster. We should be fully aware that we are dealing with patients who may be further injured, at least psychologically, by the least verbal indiscretion.

A very common finding in almost every case of the group showing no organic residuals is the attitude of doubt that the examiner will consider them to have been injured. Since these people show no visible evidence of injury, and since the collision may have done nothing more then mar the paint or chrome of the vehicle involved, the patients may feel that they have not received the sympathy they expected or deserved. As a result of this feeling of rejection they frequently exaggerate their symptoms. Many of the patients quickly and expertly remove Ace bandages and arm slings just prior to physical examination so that they may point out weak, painful, or anesthetic areas of their shoulders and extremities. These phenomena are manifestations of conscious or unconscious efforts to gain recompense they consider to be deserved. It is this type of individual who can be further damaged by the flip attitude of the "doubting Thomas" who is dealing with the problem. One example to illustrate this phenomenon was a woman who developed partial hemianesthesia from scalp to toe as manifested by the loss of pain to pinprick and the inability to distinguish hot from cold stimuli. Her main symptom was the feeling that her left hand and arm had become numb and useless. Although she was able to use eating utensils she was forced to employ help to prepare food and clean her house. Interestingly enough, she lost her voice when her mother, who had been helping her, was taken to the hospital for treatment of a respiratory affliction. She recovered her voice when her son assumed the household duties her mother had previously performed. Some years prior to her present injury she had received a severe injury to the neck. A laminectomy had been performed and a divorce was obtained shortly thereafter. The neck injury apparently was the result of a beating by her former husband. According to the patient, she made a complete recovery shortly after the operation. The neurologic findings in the present injury extended to the exact midline of the body from forehead to hypogastrium with no overlap at any point. This was obviously a true conversion reaction. Just prior to trial this case was settled for $6,000, whereas $30,000 had been requested. No follow-up is available.

Summary

Eighty-eight patients with alleged whiplash injury were examined after maximum treatment benefit had been obtained and the patients were awaiting financial settlement. Eleven patients were referred by agents of the plaintiff and the remainder by agents for the defendant. No permanent impairment was predicted in any of these cases except for possible emotional or conversion reactions. Symptoms were due in large part to abnormal fear present in the minds of the patients as a result of having heard the dread term "whiplash injury" after the accident.

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PULMONARY EMBOLISM: INCIDENCE, DIAGNOSTIC FEATURES, COURSE AND TREATMENT AT PRINCE GEORGE'S GENERAL HOSPITAL

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ACCORDING to qualified investigators, pulmonary embolism is now the most common disease of the lungs in hospitals. This is proved by many autopsies. Taking these findings into consideration, studies on pulmonary embolism in Prince George's Hospital between the years 1954 and 1957 were made.

INCIDENCE

During these 3 years the diagnosis of pulmonary embolism was made in 51 patients at Prince George's Hospital. Twenty-six of them were females and 25 were males, the same ratio between the two sexes. Thirty-four patients, 66.7 per cent, recovered from their illness, and 17 patients, 33.3 per cent, died. Autopsy was performed on only 9 patients (table 1).

TABLE 1
Mortality among Patients with Pulmonary Embolism

Outcome	Number of Patients	Per cent
Recovered	34	66.7
Died	17	33.3
Number with necropsy	9	

It can be seen from table 2 that pulmonary embolism is primarily an illness of the middle and older age groups.

TABLE 2
Age Distribution of Patients with Pulmonary Embolism Compared to Adult Population

Age Group	Patients with Embolism	Percentage of Total
21–30	5	9.9
31–40	5	9.9
41–50	8	15.6
51–60	12	23.5
61–70	8	15.6
71–80	8	15.6
81–90	5	9.9

FACTORS PREDISPOSING TO THROMBO-EMBOLISM

Predisposing factors in patients with pulmonary embolism were surgery, trauma, and medical illness. A few patients were admitted with pulmonary embolism. In our cases 10 instances of embolism (19.6 per cent) occurred after surgery (1 of them after abortion); 5 of these recovered, the rest died. We had 7 cases (13.7 per cent) after trauma. There were 28 patients (54.9 per cent) admitted with medical diseases and 6 patients (11.8 per cent) with pulmonary embolism (table 3).

TABLE 3
Predisposing Influences in Patients with Pulmonary Embolism

Predisposing Factor	Number of Patients	Per cent
Surgery	10	19.6
Trauma (including fracture)	7	13.7
Medical illness	28	54.9
Patients admitted with pulmonary embolism	6	11.8

We noted that in most cases following surgery the embolism developed in the second postoperative week. Seven patients had embolism between

8 and 16 days after surgery, one 2 months later, and another 6 days later.

Our figures show that the incidence of embolism is related to major abdominal surgery. There were no cases of embolism following minor surgery.

Patients developing embolism after trauma and fracture did so after a longer interval of time than in the cases of surgical patients; for example, after fracture only 1 patient developed embolism 3 days later, another one 13 days later, and the other 5 between the third and eighth week.

CLINICAL MANIFESTATIONS

In our experience we can say that there is no typical clinical picture to describe pulmonary embolism, but there are some symptoms and signs that most of our patients had. These are not pathognomonic, but they are of some diagnostic value; for example, there was chest pain in 32 patients (62.7 per cent), dyspnea in 26 patients (50.9 per cent), syncope in 5 patients (9.8 per cent), and weakness in 6 patients (11.7 per cent). In most of these cases chest pain had been exaggerated by deep breathing.

In pulmonary embolism there are also signs which can have clinical value if one can rule out the other diseases that can give the same signs. These are fever, rales, tachycardia, hemoptysis, hypotension, congestive failure, friction rub, cyanosis, jaundice, and dullness (table 4).

TABLE 4
Frequency of Signs in 51 Patients with Pulmonary Embolism

Signs	Number of Patients	Per cent
Fever	25	49.0
Rales	13	25.4
Tachycardia	12	23.5
Hemoptysis	12	23.5
Hypotension	8	15.6
Congestive failure	4	
Friction rub	3	
Cyanosis	4	
Jaundice	—	
Dullness	12	23.5

Some of the patients had apprehension, chills, cough, and vomiting, which are not specific for pulmonary embolism.

In our series there were patients with pulmonary, cardiac, and neurologic symptoms. Pulmonary and cardiac syndromes were more prominent than others.

The resemblance to pneumonia and myocardial infarction is very close. We did not see any abdominal symptoms in our cases, but we had 5 patients with syncope, 1 with convulsions, and 2 with hemiplegia.

Embolisms probably of cardiac origin and phlebitis in the lower extremities were most common (table 5). Probably there were some more cases of phlebothrombosis which clinically were difficult to detect because inflammatory processes were absent but in which thrombosis was present. When there is no phlebitis clinical signs are absent. Sometimes thrombophlebitis appears after embolism, and this is the reason for making daily examinations, at least for a week.

TABLE 5
Relationship of Venous Thrombosis to Pulmonary Embolism

	Number of Patients	Per cent
Phlebitis, lower extremities	11	21.6
Phlebitis, upper extremities	—	—
Phlebitis, probably in pelvis	7	13.7
Emboli, probably of cardiac origin	16	31.4
Inadequate examination prior to sudden death	1	1.9
Source of emboli unknown	10	19.6
After fracture	6	11.8

In cases of cardiac origin 5 of the 16 patients had either a history of mitral disease or this condition was discovered during their hospital study.

Some of our patients had several X-ray films, some of them only 1. In 77 per cent of our cases the films were suggestive of pulmonary infarction (table 6). In 10 cases (20.8 per cent) the films were not suggestive, but probably there were

TABLE 6

X-ray Findings in 51 Patients

	Number of Patients	Per cent
X-ray not suggestive of embolism	10	20.8
X-ray suggestive of pulmonary infarction (within the week following the episode)	37	77.0
X-ray before embolism	1	—
X-ray not taken	3	—

signs of pulmonary infarction which suggested other possibilities to the radiologist. Sometimes small emboli may not produce demonstrable infarction, and sometimes infarctions produce only transient hazy densities which can be missed when serial X-ray films are not made.

A review of those cases which originally were not suggestive of pulmonary embolism indicated that most could have been pulmonary embolism.

From the X-ray films our cases showed the largest number of infarcts to be in the right lower lobe. Probably the anatomic position of the right pulmonary artery tends to be more favorable for embolisms to lodge in the right lung. There were a few cases in which the infarct occurred in the left lower lobe, both lower lobes, right middle, and right upper lobes. There were no cases in which the left upper lobe was involved.

Electrocardiographic Findings

Our electrocardiographic studies are not of much value because 18 patients had no electrocardiograms. The remaining 33 had only 1 or 2, and we do not have enough data to tell whether these were taken before embolism or after (table 7).

One of our 51 patients stated that many blood relatives on the female side had had phlebitis.

Treatment

Most of our patients during hospitalization had treatment with analgesics, anticoagulants, antibiotics, and sedatives. The anticoagulant agent was Dicumarol; sometimes in the beginning heparin was used in association with Dicumarol. Two patients had Tromexan, and 1 had Hedulin (table 8).

TABLE 7

Significant Electrocardiographic Abnormalities in 33 Patients with Pulmonary Embolism

Electrocardiographic Abnormalities	Number of Patients
Positional changes:	
Acute cor pulmonale	2
Chronic cor pulmonale	—
Minor positional changes:	
Right axis shift	5
Clockwise rotation	6
Appearance of R in AVR	1
Vertical shift	3
Appearance of Q in III and/or AVF	2
Nonpositional changes:	
Coronary insufficiency	10
ST segment elevation in III and AVF in right precordial leads	1
T-wave inversions in right precordial leads	1
Disturbance of rhythm and conductions:	
Atrial fibrillation	7
Sinus tachycardia	3
Right bundle branch block	2
Left bundle branch block	3

TABLE 8

Results of Treatment in 51 Patients

Treatment	Number of Patients	Per cent	Died	Per cent	Live	Per cent
Anticoagulant	18	35.3	2	11.1	16	88.9
Without anticoagulant	33	64.7	15	45.5	18	54.5

As one may see from the table, 18 patients had anticoagulant therapy and responded very well, with only 2 dead, a recovery of 88.9 per cent. Of 33 patients who did not have anticoagulant therapy, 15 died (45.5 per cent) and only 18 recovered (54.5 per cent).

Discussion

Pulmonary embolism is a relatively common condition. The physician must know the various clinical manifestations of pulmonary embolism.

(*Continued on page 314*)

PHEOCHROMOCYTOMA IN CHILDHOOD

Report of a Case in a Seven-year-old Boy

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HYPERTENSION is unusual in children, but when present it often portends some serious underlying disease. One of these is pheochromocytoma. Although its occurrence is rare it must be considered in the differential diagnosis of hypertension.

Sixty-seven cases of pheochromocytoma in children 14 years of age and under have been reported in the world literature. Forty-eight of these cases were reported within the past 10 years. This undoubtedly is due to an increased clinical awareness and employment of specific diagnostic tests.

Because pheochromocytoma represents a curable disease, this paper is presented describing the clinical course and management of a case in a 7-year-old boy.

REPORT OF CASE

A 7-year-old colored boy (DCGH case no. 49968) was hospitalized because of generalized convulsions. The child was well until 1 month before admission. At that time the mother noted that the child was not gaining weight satisfactorily. She also noted that he had become unduly hyperactive, irritable, perspired freely, and drank copious amounts of liquids. Twenty-four hours before admission the patient complained of dysuria and severe, generalized headaches. At the same time he was described as being in a "cold sweat."

The mother had had mild toxemia during pregnancy, and the patient was born prematurely, weighing 3 pounds and 4 ounces. The neonatal course, however, was uneventful. During the previous 6 years the patient had been a frequent visitor to the outpatient department because of repeated upper respiratory infections. At no time had the blood pressure been recorded.

Following the convulsion the patient appeared to be acutely ill. He was comatose, moderately dehydrated, and malnourished. The blood pressure was 140/110, the temperature 101°F rectally, the heart rate 160 per minute, and respiratory rate 60 per minute. He weighed 38 pounds and was 43½ inches high, placing him below the 3 percentile in each area. The extremities were edematous, cold and clammy. Periorbital edema was present. The pupils were dilated but equal and reacted to light. Funduscopy revealed narrowing of the arterioles. The tonsils were hypertrophied and moderately injected. The liver edge was palpable 1.5 cm. below the right costal margin. No abdominal masses were palpable. The femoral pulses were strong, and the blood pressure in the lower extremities was 150/110. The deep tendon reflexes were depressed, and a mild right hemiparesis was noted by one observer. Twenty-four hours after admission most neurologic signs had disappeared, and after 72 hours the patient was alert but remained irritable and uncoöperative. The clinical diagnosis entertained at the time of admission was hypertensive encephalopathy due to acute glomerulonephritis. Blood pressure control was attempted with intramuscular reserpine and hydralazine.

The patient continued to perspire freely, and the extremities remained edematous, cold and clammy. He drank copious amounts of fluid and excreted large volumes of dilute urine. The blood pressure remained elevated in spite of antihypertensive therapy (figure 1). During this time he remained alert, but his behavior was usually characterized by hyperactivity and irritability.

The white blood cell count on admission was 14,500 with a normal differential. The hematocrit was 42 per cent. Urinalysis revealed a specific gravity of 1.010, 2 plus albumin, pH of 5.5, and 10 to 15 white blood cells per high power field, with sugar and acetone negative. The blood urea nitrogen and the blood sugar were 29 mg. and 100 mg. per 100 ml. of blood. Serum electrolytes showed: sodium 130 mEq./l., potassium 3.5 mEq./l., chlorides 85 mEq./l. and HCO_3 15 mEq./l. Calcium and phosphorus determinations were normal. Roentgenograms of the thorax, skull and long bones were negative. The cerebral spinal fluid revealed a pressure of 80 mm. H_2O, 10,000 noncrenated erythrocytes/mm^3, 200 white blood cells/mm^3 with 90 per cent lymphocytes, 83 mg. per 100 ml. of sugar, 114 mg. per 100 ml. of protein, and 129 mEq. of chlorides. The smear and culture were negative. Another spinal tap performed 24 hours later revealed a normal spinal fluid. The Mantoux test was negative. Repeated urinalyses showed intermittent albuminuria and glycosuria. The urine sediment ranged from negative to 4 to 8 white blood cells per high power field. A Fishberg urine concentration test reached a specific gravity of 1.026. Phenolsulfonphthalein excretion was normal. A 24-hour urine protein excretion was 200 mg./l. An excretory urogram, a retrograde pyelogram, and a split urine function test (Howard test) were negative. The last 2 procedures were done under general anesthesia with nitrous oxide and oxygen. During these procedures the blood pressure remained at a level of 180/150. The fasting blood sugar on 2 occasions was 125 mg. per cent and 118 mg.

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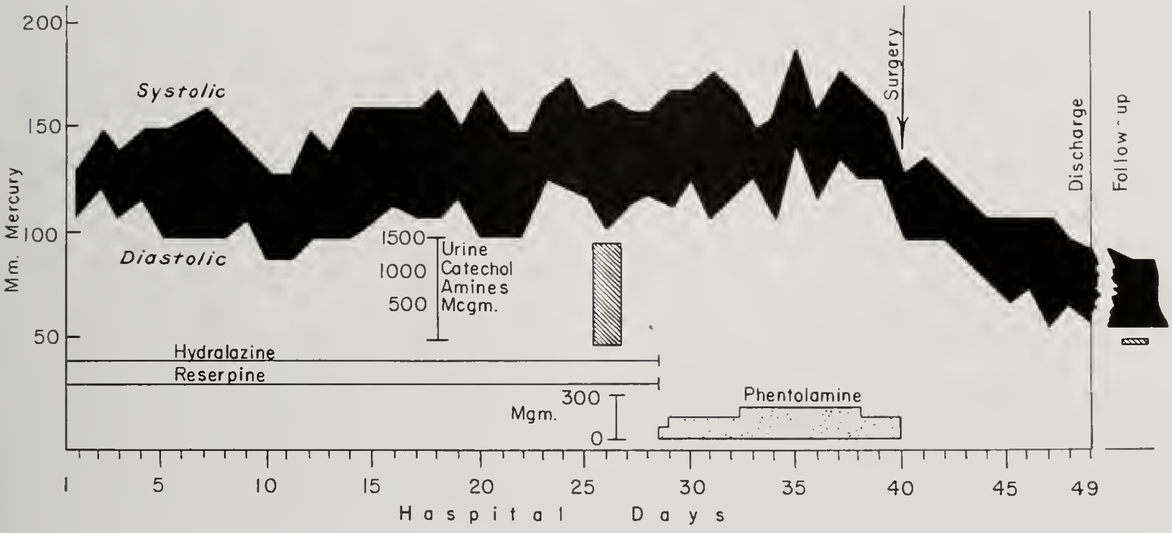

FIG. 1. Daily average blood pressure during hospitalization and follow-up: effects of treatment.

Repeated electrolyte determinations were within normal limits. Total serum protein was normal. Repeated blood counts were normal except for an elevated erythrocyte sedimentation rate. An electrocardiogram revealed left ventricular hypertrophy and myocardial ischemia. Two mg. of phentolamine (Regitine) was given intravenously. The blood pressure dropped from 150/110 to 130/90 within 30 seconds and promptly returned to the previous level. The test was inadvertently performed while the patient was receiving antihypertensive medication, so that the results were considered equivocal. The test was not repeated. Later the level of urinary catechol amines was 1,600 mg. per 24 hours, and the plasma catechol amines were 20.9 mcg./l.*

Once the diagnosis of pheochromocytoma was established by the abnormal level of catechol amines, the patient was placed on an empirical dosage of oral phentolamine, 25 mg., every 6 hours. The blood pressure was recorded every half hour. It soon became apparent that such a dosage was inadequate. The time interval was increased to every 4 hours and then to every 2 hours. During this period of preparation for surgery the patient became exceedingly hyperactive and irritable. On one occasion the patient demonstrated shock-like symptoms when the blood pressure suddenly dropped to 110/90. An infusion of norepinephrine (Levophed) quickly raised the blood pressure to 150/100. Shortly thereafter the patient had a brief febrile episode and generalized urticaria. The remainder of the preoperative period remained uneventful, although the blood pressure remained high (figure 1).

Surgery was performed 11 days after the initiation of oral phentolamine and 39 days after admission. Anesthesia induction consisted of hypothermia and rectal Pentothal followed by cyclopropane. The anesthetic agent during surgery was ether. During induction the blood pressure rose to 215/160. This was quickly controlled with 0.25 mg. of phentolamine intravenously. An abdominal exploration was performed through a transverse upper abdominal incision. A 3 by 2 by 1.5 cm. encapsulated mass was found imbedded in the left adrenal gland. During manipulation of the tumor the blood pressure rose to 230/150. One-half mg. of phentolamine intravenously quickly lowered the pressure to 130/100. Upon removal of the tumor the blood pressure fell precipitously to 80/0. Intravenous norepinephrine at this point maintained a normotensive level. A total dose of 10 mg. of norepinephrine was required during the first 24-hour postoperative period. The remainder of the postoperative course was uneventful, and the patient was discharged 10 days after surgery.

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* Normal values—total urinary catechol amines: 50 to 200 mcg. per 24 hours; plasma catechol amines, 0 to 4 mcg. per liter.

The surgical specimen consisted of an ovoid, soft, encapsulated mass. The cut surface was reddish. The microscopic sections revealed proliferating polygonal cells with elongated vesicular nuclei and prominent nucleoli. Some nuclei were enlarged and hyperchromatic. The tumor, on chemical analysis, contained 8.1 mg. of norepinephrine per gram of tumor tissue. (Normal is not over 1 mg. per gram of tissue.)

The patient remained normotensive and asymptomatic for 1 year. He gained to 47¼ inches in height and 49 pounds in weight, placing him in the 3 and 10 percentiles of each respective area. Six months after surgery urinary catechol amines were 24 mcg. per 24 hours.

Discussion

Pheochromocytoma is a tumor arising from the chromaffin system, which comprises special bodies of cells with an affinity for salts of chromic acid. These cells are derived from the neural plate and anatomically constitute the paraganglia of the sympathetic nervous system, the adrenal medulla, the carotid bodies, and the abdominal aortic paraganglia (organs of Zuckerkandl). Moreover, aberrant nests of chromaffin cells may be found in varied locations. These tumors secrete varying amounts of epinephrine and norepinephrine. Generally the secretion of norepinephrine predominates. The physiologic action of these hormones is responsible for the clinical manifestation of this disease. Briefly, epinephrine increases blood pressure by increasing cardiac rate and cardiac output, but the blood pressure increase is mainly systolic. Epinephrine also causes an increase in metabolic rate, glycogenolysis and sweat production. It is a vasoconstrictor in the splanchnic area, skin and mucous membranes, but this effect is overcome by vasodilation in the muscle mass. On the other hand, the main action of norepinephrine is peripheral vasoconstriction, causing elevation in both systolic and diastolic blood pressure.

The occurrence of pheochromocytoma is indeed rare. Recently Cone,[1] reviewing the literature,[2-6] found 31 cases reported in children 14 years of age and under and added 3 cases. Tevetoglu[7] summarized 47 cases and added 1 case. Smid and DuShane[8] reviewed 32 cases. These case reviews overlap to a large extent, but at the same time complement each other. We have found 13 additional cases.[9-18] The total number of cases, including this report, is 68. However, the statistical data presented in this review are based on 60 cases. Complete information was not available in 8.

The average age at onset of pheochromocytoma is approximately 10 years, with a range of 5 months to 14 years, but most cases occur at or near puberty. The sex ratio is approximately 2 males to 1 female.

Twenty-seven of a total of 60 patients, or 45 per cent, died as a consequence of their disease. Forty-seven patients were explored surgically. There were 13 surgical deaths, or a 28 per cent overall surgical mortality. In earlier reviews Clausen[9] and Cone[1] reported surgical mortalities of 44 per cent and 36 per cent respectively. If one considers only the cases reported since 1954 the surgical mortality has been reduced to 12 per cent. This lowered mortality can be attributed only to the better understanding of the underlying pathologic physiology of this disease and the consequent better medical and surgical management.

Sixty-two per cent of all tumors are unilateral, and the more common site is in the right adrenal gland (figure 2). The left adrenal gland is more often affected in the female. Thirty-eight per cent of all pheochromocytomas are multiple in location; 20 per cent are extra-adrenal, and 18 per cent are found in both adrenals.[19, 20] The aortic paraganglia are the most common extra-adrenal sites. In only 2 cases was the tumor extra-abdominal. Cone[1, 21] described both of these, 1 being an intrathoracic tumor and the other a nonmalignant cervical tumor in a boy who had a pheochromocytoma removed from the right adrenal 2 years previously. Case reports of familial occurrence of pheochromocytoma are cited in both adults and children.[1, 22] The incidence of malignancy is 10 per cent.

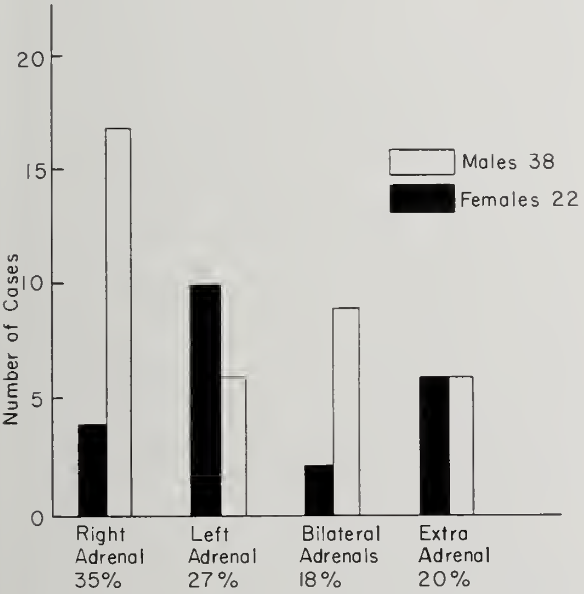

FIG. 2. Incidence of tumor location in 60 cases of pheochromocytoma and distribution according to sex.

As stated previously, the clinical picture of pheochromocytoma is due to the proportions of circulating epinephrine and norepinephrine. In children the disease is characterized by a persistent hypertension rather than paroxysmal, or at times paroxysmal rises in blood pressure on a preëxisting hypertension. Daeschner[23] reviewed the symptoms concisely. They are usually headache, visual disturbances, excessive sweating, nervousness, weight loss, weakness, anxiety, polydipsia, polyuria, polyphagia, nausea, vomiting and intermittent abdominal pain. Physical findings include persistent hypertension, tachycardia, cardiomegaly, restlessness, irritability, retinopathy, undernourishment, hyperhydrosis and peripheral vascular phenomena. The last of these is fairly characteristic in children. The association of hypertension with pale, clammy extremities and bluish-red discoloration of the hands and feet should lead to the suspicion of pheochromocytoma.

Laboratory tests usually reveal a diabetic glucose curve, glycosuria, albuminuria, elevation of the blood urea nitrogen, increased basal metabolic rate, and electrocardiographic evidence of cardiac enlargement. Excretory urograms may be abnormal. The usual diagnostic tests employ epinephrine-blocking agents. Among these phentolamine is used most commonly today. The reported overall incidence of false positive and negative results with this drug is 5 per cent.[24, 25, 26] False positive results occur more commonly if patients are sedated, uremic or have a mild hypertension. Phentolamine was used in 18 of the cases reviewed. Four, or 22 per cent, gave equivocal results. This is probably too small a series to adequately evaluate the reliability of this test in children. However, Cone[1] states that because of the difficulty in establishing a baseline blood pressure in children this test is too difficult to interpret for definitive diagnosis. The most specific and reliable test available at the present time is the measurement of catechol amines in the urine or blood.[27, 28] However, in the light of the present knowledge that bananas contain appreciable amounts of norepinephrine,[29] this fruit should be excluded from the diet before blood or urine samples are collected.

The preoperative localization of the tumor is of practical significance. An excretory urogram in both anteroposterior and lateral views may at times localize the lesion. For the same purpose perirenal insufflation has been employed, but this procedure has been discarded by most clinicians because of the dangers of fatal hypertensive crisis. Aortography has also been advocated.[30] A new approach[31] to this problem employs the introduction of a catheter into a peripheral vein as in cardiac catheterization, and under fluoroscopic control blood samples can be obtained from selected parts of the venous system. The venous blood from the area near the tumor may have a sufficiently higher concentration of catechol amine to allow precise localization. By such a method Cone[21] was successful in determining that a cervical mass was a functioning pheochromocytoma.

The differential diagnosis of pheochromocytoma includes the causes of hypertension in childhood. Because genitourinary system involvement is the most common cause of hypertension in children, diagnostic studies should be directed to this area. Briefly, some of the renal diseases to consider are acute and chronic glomerulonephritis, pyelonephritis, renal vein thrombosis, hydronephrosis, tumor, the renal involvement of periarteritis nodosa, disseminated lupus erythematosus, polycystic renal disease, and other anomalies. Other less common causes of hypertension are acute poliomyelitis, brain tumors. encephalitis, diencephalic seizures, intracranial hemorrhage, anxiety neurosis, coarctation of the aorta, patent ductus arteriosus, hyperthyroidism, Cushing's syndrome, adrenogenital syndrome, aldosteronism, lead and vitamin D intoxication, acrodynia, familial autonomic dysfunction, acute intermittent porphyria, and essential hypertension. A careful history, physical examination, and appropriate laboratory tests will help the physician eliminate many of these diseases. When the etiology of hypertension is not readily discernible, the phentolamine test should be employed and, if laboratory facilities permit, the urinary or blood determination of catechol amines.

The management of patients with pheochromocytoma is well documented.[24, 31, 32, 33] Iseri[34] was the first to describe the preoperative use of oral phentolamine as an effective method of controlling blood pressure and preparing the patient for a more favorable surgical outcome. Phentolamine, providing a partial adrenergic block, protects the patient from such fatal episodes as acute cardiac failure, encephalopathy and cardiovascular collapse. At times, when oral phentolamine does not control symptoms the intramuscular or intravenous route should be employed. During the preoperative management of our patient with oral phentolamine a transient fever and urticarial rash were noted. Wehn[12] reported a similar episode. Other side-effects of phentolamine are tachycardia, transient dizziness, and gastrointestinal upsets.[35]

During anesthesia induction and intubation large amounts of catechol amines may be released by the tumor with increased hazard to the patient. Intravenous phentolamine should be on hand for immediate infusion.

Considering the surgical approach, the transverse abdominal incision should be employed. In view of the high incidence of multiple tumors, such an approach provides the surgeon adequate space for exploration. During surgery the critical point is reached when the tumor mass is manipulated and when the blood supply to the tumor is ligated.[36] Manipulation will cause a dangerous rise in blood pressure, whereas ligation will cause precipitous hypotension. These two events must always be anticipated, and intravenous phentolamine and norepinephrine should be readily available.[37] At times the persistence of postoperative hypotension is distressing, and large amounts of norepinephrine may be required.[36] Beard[13] reported a fatal case in an 11-year-old boy who required 128 mg. of norepinephrine postoperatively. Sometimes the previous use of large doses of phentolamine may abolish the effects of norepinephrine, requiring the use of other pressure agents, such as Neo-Synephrine. In cases in which adrenal tumors are bilateral the postoperative use of cortisone may be required. In general, the greater the production of cathechol amines by the tumor the more norepinephrine is required.

Sometimes after operation the blood pressure may again become elevated.[17] This is most likely due to a remaining undetected tumor. A repeat determination of catechol amines would be helpful in such an event. The elevation of blood pressure may also be due to the residual vascular changes secondary to the pheochromocytoma.

SUMMARY

A case of pheochromocytoma in a 7-year-old Negro boy has been presented. Sixty-eight cases of pheochromocytoma in children 14 years of age and under have been reviewed and the subject is discussed briefly.

ADDENDUM: Since the writing of this report another case[38] has come to the attention of the author.

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SEPTIC THROMBOSIS OF THE CAVERNOUS SINUS

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THE SERIOUS and often fatal consequences of squeezing a boil on the face or of pulling a hair out of the nose are known even to the laity. Should an infection spread from such foci and reach the cavernous sinus, prompt and vigorous treatment is required if a fatality is to be avoided. The early recognition of septic thrombosis of the cavernous sinus needs no emphasis when it is recalled that the mortality in this condition is over 90 per cent in untreated cases. Septic thrombi may reach the cavernous sinus through the anterior route or the posterior route. The clinical features of thrombosis by the anterior route are different from those of septic thrombosis by the posterior route. In order to illustrate each of the 2 major syndromes occurring with thrombosis of the cavernous sinus 2 contrasting case histories are presented here. In the first case the patient squeezed a boil on his face and shortly afterward developed classic septic invasion of the sinus by the anterior route. In the other case the cavernous sinus became involved by the posterior route from a primary infection in the maxillary air sinus. Following treatment both patients recovered.

REPORT OF CASES

Case 1. J. T., an 11-year-old white school boy, squeezed a pimple on his face and 48 hours later developed fever, vomiting, intense pain behind the left eye, and severe swelling around this eye. He was admitted to Georgetown University Hospital on the service of Dr. Robert Maher on March 7, 1957. Additional history revealed no unusual diseases in the past, and in particular no previous history of sinus or ear disease. Examination showed an acutely ill child with a temperature of 101°F, pulse rate of 88, respiratory rate of 20, and blood pressure of 120/80. He was alert, oriented and coöperative. The left eye was proptosed and tender. The soft tissues around the eye were red and swollen (figure 1). There was a complete paralysis of all external movements of this eye. The pupil was dilated and did not react to light or accommodation. The optic fundus showed dilatation of the retinal veins, a normal appearance of the optic disc, and no retinal exudates. The right eye was normal in all respects. On the skin of the face were several small pimples topped with a dry crust. The child could not recall which pimple or pimples he had squeezed just prior to becoming ill. Percussion over the cranial air sinuses elicited no tenderness. There were no signs of a pathologic discharge from the ears, nose, or mouth. No evidences of meningeal irritation were present. The other cranial nerves were normal. The deep and superficial reflexes were intact and no abnormal reflexes were elicited. The remainder of the neurologic examination with reference to sensation and coördination tests showed no abnormal findings. The rest of the general physical examination was not remarkable.

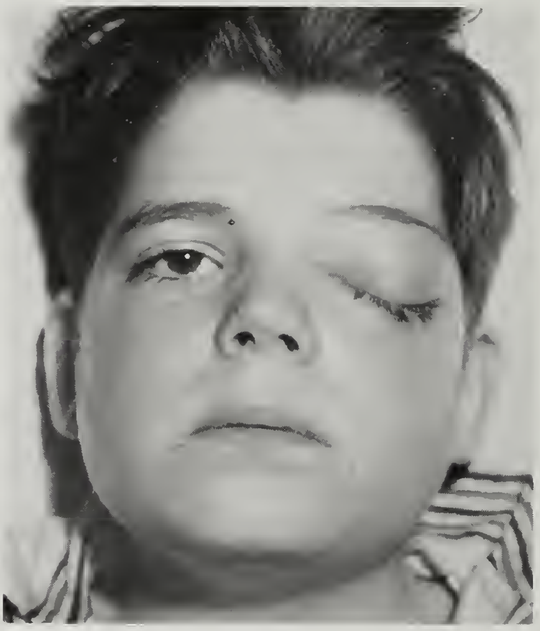

FIG. 1. Acute phase of septic thrombosis showing severe swelling around the eye.

A blood count performed on admission showed 21,854 white blood cells per cu. mm., with a differential count of 91 per cent polymorphonuclears and 9 per cent lymphocytes. The red blood cell count, hematocrit, and hemoglobin estimations were normal. Urinalysis showed a specific gravity of 1.040, 2 plus sugar, 1 plus acetone, and no albumen. The microscopic analysis of the urine showed no abnormal findings. Lumbar puncture yielded clear cerebrospinal fluid under a pressure of 180 mm. of water. The spinal fluid contained 165 red blood cells and 2 white blood cells per cu. mm. The protein content of the fluid was 45 mg. per 100 ml., sugar 140 mg. per cent, and chlorides 129 mg. per cent. A blood culture taken on the day of entry was reported negative for bacterial growth 96 hours later. X-ray films of the sinuses revealed clouding of the right and left maxillary sinuses. X-ray examination of the chest was normal.

A diagnosis of thrombosis of the left cavernous sinus was made, and antibiotic therapy was started 1 hour after admission. Chloromycetin was given, starting with 500 mg. for the first dose and 250 mg. every 6 hours for a period of 11 days. In addition, Combiotic (penicillin, 400,000 and dihydrostreptomycin, 0.5 Gm.) was administered in a dose of 1 ampule twice a day for 11 days. On the day after admission a slight increase in the proptosis and swelling of the left eye was noticed. The severe pain behind the left eye had lessened after 48 hours and disappeared entirely by the fifth day. The external and internal ophthalmoplegia slowly improved and had almost entirely disappeared at the time of discharge on the fourteenth day. The proptosis and the periorbital swelling disappeared by the ninth day after entry. Daily observations of the optic fundus were made throughout the entire clinical course, and the distention of the retinal veins without papilledema was noted until the time of hospital discharge. The elevated temperature progressively subsided from the second day onward, and finally became normal on the fifth hospital day, and remained normal until the time of discharge on March 20, 1957.

Case 2. E. H., a 40-year-old white male executive, developed an intense pain behind the right eye and over the right frontal region in March, 1959. These pains were relieved somewhat by analgesic drugs prescribed by his family physician. Two weeks after the onset of these pains he developed diplopia and was referred by Dr. Leo Curtis for neurosurgical consultation. Further history revealed that the patient had no known recent infections of the face, nose, or air sinuses. He had undergone no recent dental treatment and had had no recent chills or fever. His background history with reference to other medical, surgical, or traumatic illnesses was negative.

Examination on March 16, 1959 showed an alert and husky white man of 40 years who showed no gross features of note on inspection. There were no areas of tenderness over the face and sinuses or over the calvarium. There were no signs of congestion of the eyes or the soft tissues around the eyes. The blood pressure was 140/80. The temperature, pulse rate and respiratory rate were not recorded. Both optic discs were normal in color and clearly outlined. The retinal arteries and veins were normal and there were no retinal exudates. Both palpebral fissures were equal. The pupils were normal, but at times the right pupil seemed to be a little smaller than the left. The extraocular movements were normal, but the patient reported diplopia on downward and on right lateral gaze. Sensation was intact over both sides of the face. The jaw opened and closed in the midline. The face and mouth were symmetrical. Bone and air conduction were intact in each ear. The palate, uvula and tongue were in the midline. The remainder of the neurologic examination and the physical examination was normal. X-ray films made at this time showed clouding of the right maxillary and ethmoid sinuses. Because no clinical conclusions were reached after neurologic and X-ray examination the patient was advised to enter the hospital for further study.

He was admitted to Georgetown University Hospital on March 19, 1959, almost 3 weeks after the onset of his illness. The blood pressure was 130/80, the oral temperature was 98°F, the pulse rate 88, and the respiratory rate 20 per minute. On the day of admission the patient developed complete paralysis of the abducent (VI) nerve of the right eye (figure 2). The rest of the neurologic and physical examination was normal.

The hematocrit was 42, the hemoglobin 13.3 Gm., and the white blood cells 8,400 per cu. mm., with 54 per cent polymorphonuclears, 44 per cent lymphocytes, and 2 per cent eosinophiles. The urine was normal. The serologic test for syphilis was negative. On March 20, 1959 a right carotid angiogram showed complete obstruction of the carotid artery within the cavernous sinus (figure 3). Another angiogram of the right carotid artery on March 24, 1959 showed the same features as the first one. The patient was discharged from the hospital on March 25, 1959 with a diagnosis of obstruction of the internal carotid artery within the cavernous sinus of unknown cause.

He was readmitted to the hospital on March 30, 1959 because of the onset of numbness of the right upper lip and gums. He reported that his headache and eye pains were still present but not as severe. He had not experienced any chills or fever. Reëxamination showed that the paralysis of the abducent nerve on the right side was still present and that there was analgesia of the maxillary division of the trigeminal nerve on the right side. The oral temperature, blood pressure, pulse and respiratory rates were normal. Examinations of the blood and urine were normal. A lumbar puncture showed clear cerebrospinal fluid under a pressure of 195 mm. H_2O, with a cell count of 2 per cu. mm. and a protein content of 42 mg. per 100 ml. A serologic test for syphilis on the spinal fluid was reported normal. Transaminase estimation of the spinal fluid showed a level of 62 units (normal, 43 units). An electroencephalogram was normal. X-ray films of the chest were normal.

At this time the entire history was reviewed again with the patient. Then it was recalled by him that 2 weeks before the onset of his present illness he had contracted a severe "head cold" which was not treated and eventually was forgotten. When this important additional history had been obtained it was realized that the patient was suffering from septic thrombosis of the cavernous sinus on the right side. The absence of chills, fever, leukocytosis or any other systemic reaction indicated that the septic process had subsided although thrombosis was still present. He was discharged from the hospital on April 7, 1959. As a precautionary measure, he was given penicillin, 600,000 units a day by the intramuscular route for a period of 7 days. After he left the hospital he was examined at regular intervals. The headaches and eye pains finally disappeared by April 23, 1959. The analgesia of the right side of the cheek went away by May 14, 1959. On examination June 18, 1959 it was noted that he had recovered from the paralysis of the abducent nerve on the right side and the patient reported that he felt completely well for the first time since March 1, 1959.

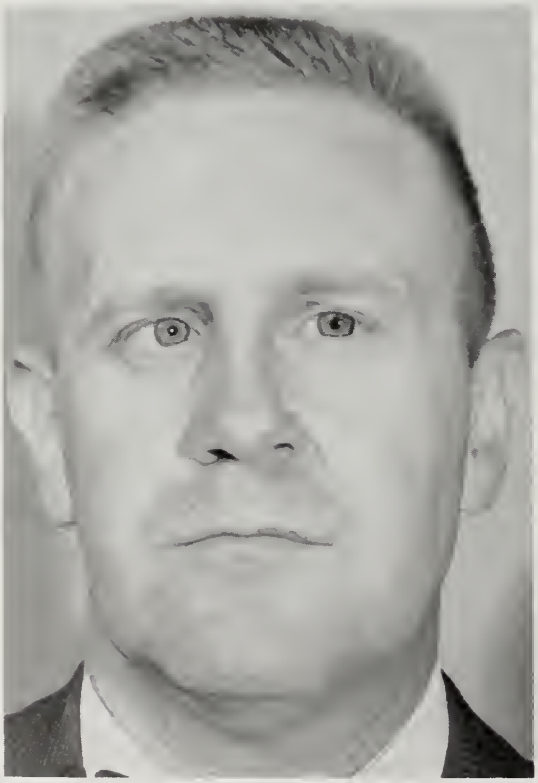

Fig. 2. Septic thrombosis, chronic phase, showing paralysis of right abducent nerve.

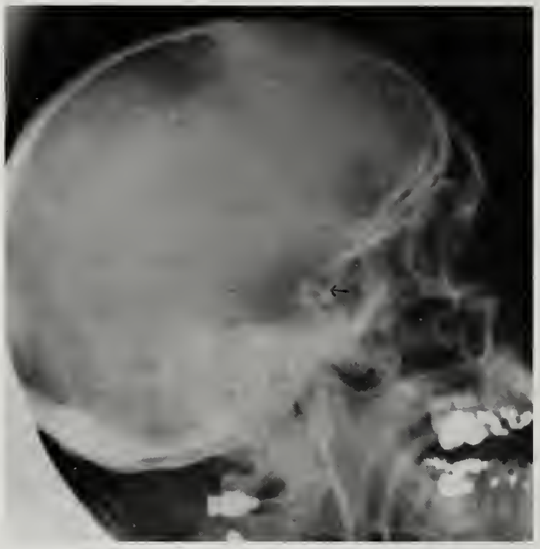

Fig. 3. Right carotid arteriogram showing obstruction of carotid artery inside cavernous sinus (arrow).

PATHOLOGIC ANATOMY

The cavernous sinuses are paired structures lying on either side of the body of the sphenoid bone. Each sinus is quadrilateral in outline, resembling a flat box. Its interior is traversed by interlacing bands of fibrous tissue or septae, hence the name cavernous. Like the rest of the intracranial venous sinuses, the cavernous is lined with endothelium continuous with that of the veins emptying into it. There may be as many as 10 venous channels draining into each cavernous sinus. Inside each sinus lies the internal carotid artery and the abducent (VI) nerve. Contained within the lateral wall of the sinus are the oculomotor (III), the trochlear (IV), and the ophthalmic and maxillary divisions of the trigeminal (V) nerves.

Septic invasion of the cavernous sinus by the anterior route arises from foci on the skin of the face, including the lips and the nose. Boils and pimples on the face and in the nose are common sources of primary infection in this connection. The facial vein drains these areas, and the drainage continues up to the angular vein, which in turn enters the orbit and empties into the superior ophthalmic vein. The latter vein communicates directly with the cavernous sinus (figure 4).

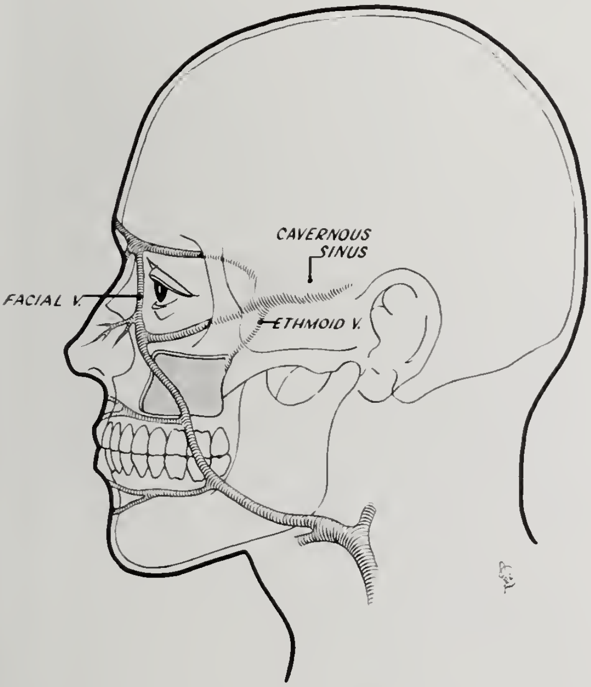

FIG. 4. Outline of anterior and posterior (partial) routes of drainage into cavernous sinus.

Infection may reach the cavernous sinus by the posterior route via the ethmoid and the pterygoid venous plexuses. The venous channels drain the inside of the mouth, the nasopharynx and the air sinuses. Therefore, septic foci in the cranial air sinuses, the jaw bones, the teeth, and the tonsils are potentially dangerous because of the venous drainage from these areas (figure 4).

Infection may also reach the cavernous sinus in a retrograde fashion from the inner and middle ear and from the mastoid bone. In these cases the septic process involves the lateral sinus first and then extends forward into the petrosal sinus and into the cavernous sinus.

CLINICAL FEATURES

When the cavernous sinus becomes infected through the anterior channels the signs and symptoms are the result of obstruction of the veins draining the eye and the soft tissues around it and, secondly, of direct pressure within the sinus on the nerves supplying the eye. Thus, rapid swelling of the soft tissues around the eye and the adjacent side of the nose appears early after the sinus is thrombosed and is followed shortly afterward by paralysis of movement of the eye. In contrast, invasion of the sinus by the posterior route causes mainly paralysis of the eye with little or no swelling of the soft parts of the face.

Generally speaking, once infection starts to spread from its primary focus and gets into the sinus clinical events start to move rapidly. A chill often signals the beginning of serious trouble. Pain behind one eye appears within a few hours and remains severe and intense. The pain is attributed to pressure against the ophthalmic nerve in the wall of the sinus. Within 24 hours the swelling around the orbit becomes marked, and proptosis of the eye usually occurs. The palpebral and bulbar conjunctivae become injected and edematous. The patient may start to complain of double vision, and examination at this time shows the presence of strabismus due to paralysis of either the oculomotor, trochlear, or abducent nerves, or to all 3. Ptosis of the upper eyelid appears early and is due to involvement of the oculomotor or the sympathetic nerves or both. Examination of the optic fundus often shows distention of the retinal veins, but papilledema is not commonly present.

After the initial chill the temperature climbs rapidly to 103° or 104°F. Generally the fever is septic in type. The systemic reaction of the patient becomes marked as the illness progresses. In the early phases malaise, anorexia, and vomiting occur, and later on severe prostration and coma develop. When the diagnosis is not recognized soon enough or when specific treatment is not rendered, death usually occurs within 4 to 7 days. However, death may occur sooner than this, and many cases are recorded in the literature in which death occurred within 24 to 36 hours. Signs of meningeal irritation are minimal or absent, and the cerebrospinal fluid shows no pleocytosis and only slight elevation in the protein content. On smear or culture of the spinal fluid no organisms are found. In the more fulminating cases bacteremia is always present and the responsible organism can be recovered by blood culture. The systemic response to these serious infections is, of course, reflected in the leukocytes of the blood. The leukocyte response may reach 25,000 to 35,000 white cells per cu.mm.

Discussion

One of the best reports on the pathologic changes occurring within the cavernous sinus and its adjacent structures in fatal cases of thrombosis is that by Walsh.[1] In this report the autopsy findings in 6 cases are recorded. In several instances necrosis or abscess formation in the hypophysis was demonstrated. In the light of the latest concepts regarding the pituitary gland such destruction within the gland may well explain the prostration and systemic collapse which so often precede death. In several of his cases, Walsh[1] also reported abscess formation within the orbit, widespread infection of the soft tissues in the orbit, pus in the lumen of the carotid artery, local purulent and necrotic changes in the dura mater adjacent to the cavernous sinus; in a number of instances he noted that the interior of the cavernous sinus was filled with pus. Courville[2] also reported free pus within the cavernous sinus in his autopsy series. Oddly enough, changes in adjacent brain tissues are not commonly found at necropsy in these cases even though the infected thrombus may extend into the venous sinuses adjacent to the cavernous sinus.

Septic thrombosis of the cavernous sinus is not a common disorder. As Langworthy[3] points out, the average physician in a lifetime scarcely will see more than 2 or 3 cases. In Courville's series[2] of 30,000 autopsies thrombosis of the cavernous sinus was found in only 45 cases. In this study the primary focus for the septic thrombus was listed as follows: face, 13; middle ear, 8; sinuses, 8; teeth and tonsils, 4; nose, 1; miscellaneous, 5; unknown origin, 6. In a collected series of 60 cases Shaw[4] found that the primary focus was located on the face in 61 per cent, the cranial air sinuses in 15 per cent, the middle ear and teeth in 15 per cent, and from miscellaneous foci in 9 per cent. The responsible organism in thrombosis is more often the staphylococcus than any other. Thus, Shaw[4] noted that the staphylococcus (albus or aureus) was responsible in 75 per cent, the streptococcus in 22 per cent, and *B. proteus* in 3 per cent.

Walsh,[1] Benedict,[5] and Faulkner[6] agree that venous obstruction is the principal cause for the exophthalmos and that exophthalmos is always more marked when the infection travels the anterior pathway through the facial and angular veins. The same can be said for the mechanism causing the severe edema of the eyelids.

Prognosis and Treatment

Prior to the availability of the chemotherapeutic, the antibiotic, and the anticoagulant drugs the attitude toward septic thrombosis was that of hopelessness. The older literature contains many gloomy statistics regarding the chances of survival from this condition. Langworthy,[3] in a questionnaire inquiry, found the recovery rate to be approximately 7 per cent and stated that few patients ever survived thrombosis when the infection came from the anterior route. Grove[7] reviewed the literature up to the year 1936 and estimated that almost 400 cases of septic thrombosis had been reported and that the mortality was nearly 100 per cent. Walsh[8] pointed out that prior to the advent of chemotherapy only 1 patient in the Johns Hopkins Hospital series recovered. In former days radical surgical procedures were recommended and widely accepted for patients with this condition. For example, the operation recommended and utilized by Eagleton[9] consisted of ligation of the carotid artery, followed by exenteration of the orbit and its contents, and then entering the sinus directly through the sphenoidal fissure for purposes of draining the sinus. The turning point was reached in 1937, when MacNeal and Cavallo[10] reported recovery in a patient treated with the sulfonamides who had thrombosis of the cavernous sinus and bacteremia. Barnshaw[11] reported another recovery with the sulfonamide drugs. Success with sulfathiazole was later recorded by Wolfe and Wolfe.[12] Finally, when penicillin became available Goodhill[13] reported recovery in the treatment of his patient with septic thrombosis with this drug. The use of heparin in this disease was first reported by Lyons,[14] with recovery in 2 cases. Shaw[4] summarized the signal successes achieved in the modern treatment of cavernous thrombosis. In a series of 60 collected cases there were 53 recoveries, a mortality of 12 per cent. In the 60 patients treated, the sulfonamide drugs had been used in 25 cases, and penicillin was the principal drug in 35 cases. Prior to the use of modern therapy no report of clinical complications from cavernous thrombosis was ever written because most of the patients died. However, in the same series Shaw[4] noted that 64 per cent of those patients who recovered developed serious complications during the active stage of their illness. Metastatic pulmonary infection occurred in 17 patients, orbital abscess in 9, and brain abscess in 5. Furthermore, sequelae involving cranial nerves occurred in 22 patients, including total blindness of 1 eye in 5 patients, and partial blindness of 1 eye in 4 others.

SUMMARY

The clinical and pathologic features of septic thrombosis of the cavernous sinus have been reviewed. The 2 common routes of invasion of the sinus, the anterior and the posterior, have been discussed and illustrated by case reports. The favorable prognosis of this disorder achieved by the use of modern antiobiotic therapy has been compared to the gloomy prognosis in the past.

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RENAL VEIN THROMBOSIS WITH MASSIVE HEMORRHAGIC INFARCTION OF THE KIDNEY

Report of a Case with Survival Following Surgery

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RENAL VEIN thrombosis was first described as a pathologic entity in 1837 by Rayer.[1] It was not until 1942 that Campbell and Mathews[2] first diagnosed this entity clinically and reported 2 cases successfully treated by nephrectomy. Since that time a large number of papers have appeared on the subject. This communication reports a case with hemorrhagic infarction of the kidney. Nephrectomy was performed and the patient survived, thus becoming, I believe, the nineteenth case of survival to be reported in the Anglo-American literature.[2–17]

Report of Case

On July 23, 1958 a 12-day-old Negro boy (A. T.) was admitted to the District of Columbia General Hospital isolation ward with a history of loose stools of 48 hours' duration. Initially the stools were described as loose green. Later they became watery-yellow and small in amount and were passed every 10 to 15 minutes for the 24 hours prior to admission. No blood had been noted in the stools. The infant had been eating well. Breast-feeding was discontinued at the age of 5 days and a formula consisting of half-strength evaporated milk with 2 tablespoonfuls of added carbohydrate had been consumed in the amount of 10 ounces daily until the day of admission.

The birth weight was 6 pounds, 10 ounces. The mother was 25 years of age, gravida VI Para VI, and had received prenatal care. Labor and delivery were uncomplicated. The infant was discharged in good condition from the nursery at 2 days of age. The weight at discharge was 6 pounds, 1 ounce.

On admission the weight was 5 lb., 6 oz., the temperature 99°F, the pulse rate 142 per minute, and the respiratory rate 48 per minute. The infant appeared well-developed, poorly nourished, and moderately ill. Jaundice, pallor and edema were not present. The anterior fontanel was flat. Ears, eyes and nose were within normal limits. The pharynx was red. The chest was symmetrical without retractions. The lungs were clear. The heart was within normal limits. The abdomen was slightly protuberant but soft. The liver was palpable 1 cm. below the right costal margin. The spleen and kidneys were not palpable. Masses were not palpable in the abdomen. The umbilicus had a gray-white, wet appearance without odor. The genitalia, extremities, and neurologic examination were normal. Tissue turgor was fair. There were no skin rashes. The diagnostic impression was (1) pharyngitis, (2) diarrhea with mild dehydration secondary to no. 1 or overfeeding qualitatively, and (3) possible omphalitis with possible septicemia.

The white blood cell count was 13,900, with 40 per cent neutrophils, 48 per cent lymphocytes, and 14 per cent monocytes; the hematocrit was 57 per cent. The urine was normal. Stool culture showed 4 plus *Escherichia coli*. A blood culture was sterile. Cord culture showed 3 plus Escherichia species, 2 plus hemolytic *Staphylococcus aureus* coagulase positive. Throat culture showed 2 plus *Diplococcus pneumoniae*, 3 plus Escherichia species, 1 plus Aerobacter species, 1 plus hemolytic *Staphylococcus aureus* coagulase negative. Serum electrolytes on admission were: sodium 128 mEq./l., chloride 102 mEq./l., and CO_2 12 mEq./l.

The infant was given 1 ounce of half-strength Lytren solution hourly. Fluid intravenous therapy was instituted at the end of the first day because of inadequate oral intake. This was continued until the end of the second day, when oral feedings were again prescribed. On the morning of the third hospital day the infant became febrile and passed red urine which was Hematest-positive. Examination revealed a 3 by 5 cm. hard, fixed mass in the right flank. Urinalysis revealed numerous red blood cells and 3 to 5 white blood cells per high power field, with 4 plus albumin. Later, blood clots were passed in the urine. The blood pressure was 90 mm. of mercury by the flush method. Penicillin and streptomycin were started, and the diagnosis of renal vein thrombosis was considered in view of the sudden appearance of an abdominal mass and hematuria in a dehydrated infant. Intravenous pyelography was performed immediately, but the films were technically unsatisfactory.

The patient was maintained on intravenous fluids and frequent small blood transfusions. On the fourth hospital day the mass increased in size, and on the fifth hospital day intravenous pyelography was again attempted, but the films were again unsatisfactory.

On the sixth hospital day the infant was surgically explored under general anesthesia by Drs. Timothy Kelly and Ottavio Gelmi. The right kidney was found to be approximately 1½ times enlarged and hemorrhagic, and the blood supply appeared to be compromised. The right kidney was removed. The infant tolerated the operation well.

The infant was maintained on intravenous fluids until the eighth hospital day when dilute formula feedings were instituted. Later the same day infrequent loose stools were noted. These continued until the eleventh hospital day and then subsided. At this time the cutdown site over the left medial malleolus became infected. This was treated with Neosporin Ointment and cleared without complication. The patient continued to gain weight and was discharged on the twenty-fifth hospital day. Although the infant's urinary output was not measured during the hospital stay, it was noted that urine was passed 8 to 15 times every hospital day.

The right kidney was dark brown, slightly lobulated, and weighed 43 Gm. The capsule was thickened, hemorrhagic, and stripped with ease. The cut surface was hemorrhagic and dark brown. The cortex was yellow-white and studded with hemorrhages. The upper half of the medulla was hemorrhagic. Microscopic sections revealed massive destruction of much of the renal architecture by hemorrhage and necrosis of the parenchyma. In some areas the hemorrhage and necrosis involved the medullary rays; in other areas the necrotic process extended through the cortex to the capsule. Throughout all portions of the cortex there were multiple linear hemorrhages which extended from the corticomedullary junction almost to the capsule. Within the large renal vein at the hilum, as well as within the arcuate veins and smaller intercortical venous branches, there were recent thrombi. Veins in the peripelvis fatty tissue were likewise plugged by similar thrombi. The walls of the vessels were not remarkable. The arteries appeared normal. The diagnosis was renal vein thrombosis with massive hemorrhagic infarction of the right kidney.

The incidence of renal vein thrombosis is generally accepted as being less than 1 per cent of autopsy material. The large majority of cases occur in infants under 2 months of age. Abeshouse[18] in reviewing 228 cases found 98 patients (42 per cent) to be less than 1 year of age, and of these 98 patients 90 were below the age of 2 months. However, Kaufmann[16] in reviewing the 98 cases which have occurred since 1900 found that 60 per cent occurred in infants under 2 months of age. Since 40 per cent of the cases were 2 months or older the author made a plea that this diagnosis be considered in older infants and children.

The sexes are equally affected by this condition. However, Kaufmann[16] points out that bilateral involvement occurs more frequently in females, and when the process is unilateral the left renal vein is more frequently involved than the right. In males bilateral, left renal vein and right renal vein thrombosis occurs with equal frequency.

Renal vein thrombosis frequently results in hemorrhagic infarction of the kidney. However, hemorrhagic infarction of the kidney may occur in the absence of renal vein thrombosis. An all-inclusive classification may be obtained by combining those of Milburn,[12] Sandblom[19] and Morison[20]:

1. Primary renal vein thrombosis refers to those cases in which there is no apparent cause, i.e., no associated infection or dehydration. It may occur with hemorrhagic infarction or without hemorrhagic infarction of the kidney.

2. Secondary renal vein thrombosis refers to those cases associated with an acute illness excluding infection of the kidney. It may occur with hemorrhagic infarction of the kidney or without hemorrhagic infarction of the kidney.

3. Hemorrhagic infarction of the kidney may occur without renal vein thrombosis.

4. Renal vein thrombosis may be associated with renal infection and/or phlebitis of the inferior vena cava or the pelvic veins with extension to the renal veins.

Secondary renal vein thrombosis is the most common type in infants and children, occurring most frequently in infants with infection and/or dehydration.

Certain factors have been mentioned as predisposing to renal vein thrombosis in infancy. These are (1) the tendency toward dehydration in infancy,[21] (2) the low capillary, arterial and venous pressure associated with infancy,[22] (3) the anatomic nature of the renal circulation with its double capillary network,[23] and (4) the predominant status of bed rest in infants resulting in increased coagulability of the blood due to increased amounts of circulating thromboplastin.[24] These factors partially explain why the majority of these cases are seen in the first 2 months of life.

In infants and children thrombosis is believed to occur first in the smaller veins and later may extend to the larger renal veins.[25] Smith[9] states that symptoms appear when the main renal vein is thrombosed. Grossly the kidney is enlarged and dark red. When the main renal vein is thrombosed the entire kidney is involved. When 1 or more of the branches of the main renal vein are occluded, wedge-shaped lesions which are chocolate in color result.[18] These are referred to as hemorrhagic infarcts. Hemorrhagic infarction of the kidney may be present in the absence of renal vein thrombosis. Zuelzer[25] believes that stasis is the common factor in renal vein thrombosis and hemorrhagic infarction of the kidney. The degree of completeness and suddenness of stasis determines the pathologic picture.

The clinical features of renal vein thrombosis are fairly characteristic. One should always consider the diagnosis in an infant with gross or microscopic hematuria and a renal mass, particularly if these signs are associated with dehydration or distant infection (ileocolitis, enteritis, pneumonitis, omphalitis, scarlet fever, otitis media, diphtheria, etc.). Kobernick[26] has pointed out that urinalysis in severely ill infants even in the absence of abdominal masses may give information concerning hemorrhagic infarction of the kidney. In addition to hematuria, albuminuria is frequently present. Oligura and anuria may occur. Pyuria, if present, may be misleading. Hypertension occurs infrequently in renal vein thrombosis. The nephrotic syndrome caused by renal vein thrombosis has been found more frequently in adults,[27] but this entity has also been reported in the pediatric age group.[28]

The differential diagnosis should include renal tumors (Wilms', neuroblastoma) with hemorrhage, hydronephrosis, polycystic kidneys, perinephric abscess, and pyelonephritis.

Special radiologic examinations may be helpful in diagnosing this condition. Flat plate of the abdomen may show unilateral or bilateral enlarged kidneys. The excretory urogram frequently shows nonfunctioning of the affected kidney. Abeshouse[18] feels that errors in diagnosis are attributable to the fact that too much reliance is placed on the excretory urograms and states that retrograde pyelography gives much more information. Retrograde examinations if employed before the renal parenchyma has been rendered entirely functionless reveal irregular outline and incomplete filling of the pelvis. At this time unilateral renal bleeding and decreased function may be noted and help to make the diagnosis.

The treatment of choice in unilateral renal vein thrombosis is nephrectomy. Prior to surgery every attempt should be made to correct dehydration, electrolyte imbalance and infection. Special attention at operation should be paid to the renal vascular pedicle. The pedicle should be carefully palpated for thrombus and if possible ligated on the vena caval side of the thrombus. Pedicle ligation should be performed before manipulation of the kidney because contralateral renal vein thrombosis may occur by extension with a fatal result. Parry[4] has suggested the use of anticoagulants in association with surgery to prevent contralateral renal vein thrombosis or further increase in size of a thrombosis in the contralateral renal vein.

Bilateral renal vein thrombosis is not amenable to surgery. Here, the prognosis is most grave. Fallon[29] has reported the case of a patient with the clinical picture of renal vein thrombosis with bilateral palpable masses who survived. In unilateral renal vein thrombosis Campbell[2] states the mortality to be 95 per cent without surgery and 25 per cent with surgery. In all cases with unilateral involvement an attempt should be made to cure the patient by surgical excision of the infarcted kidney.

The classical picture of renal vein thrombosis as described in the literature and the treatment of a patient with survival has been described above. This entity, though rare in occurrence, should be considered in all infants with hematuria and abdominal mass. Early diagnosis followed by the proper therapy markedly reduces the mortality associated with this condition.

SUMMARY

A case of secondary renal vein thrombosis with hemorrhagic infarction of the kidney and surgical recovery has been presented. An all-inclusive classification has been described and a brief review of the literature presented.

ACKNOWLEDGMENT: I am indebted to Dr. Mary Jean Matthews, pathologist, for the necropsy studies, and to Dr. Thomas E. Reichelderfer, chief pediatrician, for his help in the preparation of this paper.

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President's Page

MEDICAL EDUCATION

The inflationary spiral of the post-War years has caused a tremendous increase in the costs of medical education. Contributions from medical alumni and other sources are helping in great measure to reduce operating deficits. The record of the American Medical Education Foundation speaks for itself. More than $7,000,000 has been contributed to the Foundation since it was organized. In his 1958–59 message, Dr. George F. Lull, President of the Foundation, reported that in addition to the $1,333,000 received by the Foundation in that year, physicians contributed directly to their schools a sum in excess of $3,000,000. To those who contribute on a yearly basis, their medical schools are grateful indeed. Our Society is particularly proud of the Woman's Auxiliary for its splendid contribution to Georgetown and George Washington Medical Schools through A.M.E.F.

Another important problem which will become more critical in the next 15 years is the need to keep pace with a rapidly expanding population by graduating an increasing number of physicians. It has been estimated that by 1975 we should have 10,000 graduates per year. This is about 45 per cent more than are being graduated at the present time—a truly frightening statistic. The AMA's Council on Medical Education and Hospitals advocates not only an expansion of existing medical schools but also the creation of at least 10 new schools with an average graduating class of 100 students. The cost of building the new and the expanded facilities may well run into hundreds of millions of dollars. Staffing of the new and the expanded schools is still another problem which will have to be met.

All of these needs come at a time when there is mounting evidence that careers in medicine are no longer attracting as many college graduates as in former years. Applicants for the available first year registrations are today one half of what they were 10 years ago. Even more disturbing is the fact that the decline in applicants is proportionately much greater among the A-students.

These facts are so disturbing to medical educators that much soul-searching is now apparent. Can we blame our relative loss of prestige in the eyes of college students to the admitted competition of "glamour" careers in the fields of engineering, chemistry, or physics? No doubt these careers are per se more appealing to many college men. Yet another important reason must be mentioned: There is no question that for many young men the thought of a 10- to 14-year period of college, medical school and hospital education seems almost too difficult to endure. Furthermore, the cost of this lengthy education is a burden that many families cannot assume. If the average high school student graduates at the age of 18 he will be past 30 before he completes training in a specialty. In contrast the engineer or physicist can be ready to earn a good living when he is 24 years old, and still work toward a Ph.D. while he is on the job.

The realization of these problems has begun to stir those concerned into action. Georgetown University is inaugurating a program designed to stimulate interest among high school students by enabling them to participate in research studies in medicine and dentistry under the guidance of faculty investigators. Each student will receive a grant of $100. A Club for Future Doctors has been organized in Albuquerque, New Mexico, under the leadership of a well-known ophthalmologist, Dr. Everet H.

(*Continued on page 314*)

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Editorials

POLLUTION IN THE POTOMAC RIVER

The Washington Metropolitan reach of the Potomac River has gained a reputation for extreme pollution. To the degree that the river has experienced both sewage and soils pollution of some magnitude, the reputation is deserved. Fortunately, the various jurisdictions comprising the Washington Metropolitan Area have for some time recognized the necessity to control and, where possible, eliminate sewage contamination. That recognition has led to an extensive pollution abatement campaign throughout the region with consequential real improvement in the condition of the river.

The campaign has been two-pronged. One prong has had to do with the sewerage works required to keep abreast of the requirements of one of the most rapidly growing metropolitan communities in the Nation. The other has involved corrective action required to overcome shortcomings of the past. The results of the campaign are partially observable in new works, partially in new plans.

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of the Medical Society of the District of Columbia

There has been vigorous activity in the construction of local sewage collecting systems, as well as trunk sewers to transport the wastes to suitable points for disposal after treatment. For instance, the Washington Suburban Sanitary Commission, which provides service to all of that part of Maryland contiguous to the District of Columbia, has provided large trunk main extensions along the Potomac, upstream of Washington and in the Anacostia Valley. As a result, substantially all of the sewage generated in the Potomac watershed of nearby Maryland is delivered to the District's sewerage system for disposal. Similarly, Arlington County has developed its sewerage network so as to collect and deliver for treatment all sewage wastes originating in the County. A new $20,000,000 sewerage system for the more densely populated sections of Fairfax County has been completed as have been interceptor sewers for the City of Alexandria. Fairfax also has under construction a trunk sewer which will transport wastes from the Pimmit Run area and the new Central Intelligence Agency building across Chain Bridge to the District system.

The sewage treatment capacity for the Metropolitan Area as a whole has also been enlarged and improved. With the exception of one jurisdiction, which is now designing secondary facilities, all are providing secondary treatment at this time.

On an annual basis something approaching perhaps 99 per cent of the sewage generated outside the District and over 97 per cent of that from within the District receive treatment before reaching the metropolitan waterways. The District will start construction in May of the first segment of its new Potomac River interceptor with which to drastically reduce its escaping fraction.

The reduction in the delivery of organic contamination to the river resulting from these extensive programs is impressive. Five years ago it was estimated that 220,000 pounds of biochemical oxygen demand, a commonly used index of organic pollutional loading, was discharged into the Potomac daily within the Metropolitan Area. The assimilative capacity of the Potomac has been estimated at 120,000 pounds daily, and it is therefore no surprise that, in the past, during periods of low flow, the river has experienced occasions when all dissolved oxygen has been depleted. However, as a result of the treatment now being provided, the total delivery of biochemical oxygen demand has been reduced to about 80,000 pounds daily, which should be a sufficiently low quantity to insure continuous oxygen residuals in the future.

The Washington Metropolitan Regional Sanitary Board has recently undertaken the preparation of a Regional Master Plan for Sanitary Sewers and Waste Water Disposal. This will be used as a guide by the local jurisdictions so that their planning and construction of future sewerage facilities may be coördinated in such a way as to insure the most economical and effective means of further improving the quality of the Potomac and insuring that this quality is maintained.

The Potomac as it approaches the Metropolitan Area is not grossly polluted. The operation of Dulles International Airport will inevitably stimulate a substantial population growth both in Loudoun and Fairfax Counties. It is now a matter of almost universal concern that this foreseeable concentration of people be provided with sewage disposal facilities which pose no threat to the continued use of the Potomac as a metropolitan water source, nor render it unsuitable to meet the growing demands for recreational use, nor interfere with its aesthetic qualities.

Brig. General A. C. Welling, U. S. A.
Engineer Commissioner
District of Columbia

THE PHYSICIAN AND ADOPTION

The physician has an important role in adoption. At times, however, there appears to be a needless uncertainty over his part in the procedure. Although state laws may vary widely, his role is spelled out by these acts. For the District of Columbia, Public Law 292, 78th Congress, "An Act to Regulate the Placement of Children in Family Homes . . .," approved April 22, 1944, restricts the placement of children to parents, relatives within the third degree, and licensed agencies. Whereas the law is quite broad, its scope at no time gives the physician the right to take part in the placement of a child unless he qualifies under one of the three categories.

The physician is only one part of the team that is interested in helping with the adopting procedure. It is now accepted that the best results in adoption are those which are given by combined medical, legal, and social services through licensed agencies. From this it is readily seen that the physician's role becomes one of medical service alone.

The physician is often the first person to come in contact with the problem. Even if he is not the first, there are certain responsibilities, both direct and indirect, which he should assume that will maintain the highest professional reputation and ethical standards.

The direct responsibilities are: (1) to provide medical service to the natural mother, child, and prospective adoptive parents, (2) to refer all three to a licensed adoption agency, and (3) to be familiar with the child-placing laws.

The indirect responsibilities are not quite so specific, but their importance is just as great. He may be a consultant to a social agency, a hospital staff member who develops policy in regard to medical care, or an educator who helps people understand the problems of adoption. As a citizen he is active in community services.

As important as the responsibilities are, there are some things that the physician cannot do: offer to find a child for adoption, offer to find foster parents, suggest any particular foster parents, suggest any particular child, place a child, or act as a negotiator in the placement. By any of these acts he risks violating the terms of the law.

The physician will continue to have a vital role in adoption procedures, as suggested in his responsibilities. It is necessary, however, that he make his contributions only in conjunction with a licensed adoption agency. When this is accomplished, adoption does result in its main purpose—securing a happy family for a child who must have new parents.

JAMES G. SITES, M.D.
Member, Representing the Medical Society, of Committee on Regulations for Placement of Children in Family Homes in the District of Columbia

ADDENDUM: The following are the only agencies authorized by law to place children in the District of Columbia:

The Barker Foundation
8218 Wisconsin Avenue
Bethesda 14, Maryland
Oliver 4-0575

Board of Child Care of the Methodist Church
900 Massachusetts Avenue, N.W., Room 262
Washington 1, D.C.
Metropolitan 8-2808

Catholic Charities
1710 N Street, N.W.
Washington 6, D.C.
Sterling 3-0581

Child Welfare Division
Department of Public Welfare
815 Rhode Island Avenue, N.W.
Washington 1, D.C.
Hudson 3-9005

Family and Child Services
1907 S Street, N.W.
Washington 9, D.C.
Dupont 7-7373

Jewish Social Service Agency
1131 Spring Road, N.W.
Washington 10, D.C.
Tuckerman 2-1035

Lutheran Inner Mission Society, Inc.
2633 16th Street, N.W.
Washington 9, D.C.
Decatur 2-1910

Pierce-Warwick Adoption Service of the Washington Home for Foundlings
3525 Davenport Street, N.W., Apt. 107
Washington 8, D.C.
Woodley 6-2531

THE STETHOSCOPE—A PLUMBER'S FRIEND

If any of the readers of this page have any doubts about the enduring value of Laennec's invention, let him read on.

One evening nearly 20 years ago, when I arrived home from the hospital, I found my wife almost in tears. Our new home had developed a plumbing leak. She took me to the basement and showed me where water was dripping from a heating duct at a rate almost too fast to count the drops. Feeling, as we always have, that such things require a specialist, we placed our first call for the plumber, a man recommended by a neighbor who had lived somewhat longer in our suburban community.

By the time the plumber arrived the next morning the soup kettle we had placed to catch the water had been emptied several times. The plumber studied the problem with an easy professional detachment and reported that he couldn't really find the trouble with that heat duct in the way. We would have to have the duct removed in order that he could get at the leak. He emptied the kettle, replaced it under the drip, and left.

Eleanor called me at the office to report the plumber's decision. On her urging that I take a more personal responsibility in the matter, we decided to postpone the call to the heating engineer until after I had looked the situation over once again. She agreed to stay home and empty the kettle as necessary that day.

That evening I studied the problem very closely. The heating duct ran between the 2 x 12's in the ceiling of our basement, which was, at that time, unfinished. The water was dripping from a low point of the duct, where it made a slight dip to pass under some cross-work. By shining a flashlight down the duct with one hand while holding a small mirror up against the ceiling with the other, I was able to look down the narrow space above the duct and between the 2 x 12's. The water was dripping onto the top of the duct a good 4 feet away from the point over our soup kettle. I emptied the kettle and replaced it and went upstairs to call the plumber.

Next morning, feeling quite superior, I suggested to the plumber that he check my observations. He did so, and somewhat reluctantly agreed with my findings. He paced off the distance in the basement and then went upstairs and paced off the same distance in our living room. This brought him to a segment of wall which is common to our living room and a hall closet. Pipes to a second floor bathroom run up in this portion of the wall from the basement.

The plumber explained his findings and suggested that we call a plasterer and have him tear out that portion of the living room wall. Noting that we appeared somewhat stupefied, he reminded us that the kettle in the basement needed changing and left with the suggestion that we call him when the plasterer had done his job.

Completely horrified by the thought of tearing up our pretty new living room, and by the prospect of bills from the plasterer, the painter, perhaps the carpenter, and certainly the plumber, I leaned my head sadly against the wall as Eleanor and I discussed our dilemma. And I heard a faint dripping noise in the wall. Never having fancied direct auscultation, I went to the attic to get my stethoscope where it had hung on a nail since it was last used to listen to a child's chest a few winters before. With the stethoscope I listened to that wall all the way from the floor to the ceiling and on both the living room and the closet side. The drip-drip could be clearly heard everywhere over the wall, but seemed to get fainter the higher up I went.

So I went upstairs and listened with my stethoscope over the floor of our bathroom and the adjoining portion of our bedroom. I couldn't hear the drip up there, but I could hear a gentle hiss-s-s when the bell of the stethoscope was placed on the riser beneath the bathroom door.

The plumber was out when I called him, but his wife thought she could reach him within the next few hours. When he got there I showed him how to use the stethoscope and suggested that he listen where I indicated. Although somewhat dubious, he borrowed our hammer, took up the riser beneath the bathroom door, listened again with the stethoscope, and then sawed out a small square of the bedroom floor next to the door. When he had taken this out, it was easy to see the copper pipe punctured by a nail squirting a tiny stream of water. This seemed strange to me, since the house was already nearly a year old, but the plumber said this was the usual incubation period for such a leak.

In half an hour he had repaired the pipe, replaced the piece of flooring, and written out his bill. Before he left he asked the price of a stethoscope and where one could be obtained. I answered his questions, emptied the kettle for the last time, and returned my stethoscope with with some pride to the nail in the attic.

T.M.P.

MEDICINE AND THE W.H.C.

The philosophy which has always permeated the White House Conferences has been to point out and set up policies and programs for the benefit of children and youth. Most of the conferences have emphasized the social, cultural and economic deficiencies existing in families and communities. This has been particularly so in the past two or three.

Recent developments in medicine, especially in the field of psychiatry, have tended to involve, more and more, other branches of medical care. This interest has created not only a desire of physicians to participate in activities directed toward the protection of youth, but a desire of other disciplines to use medical knowledge where possible. This mutual interest in the total welfare of youngsters has been one of the highlights of the past decade. In fact, most of the Governors' Youth Commissions have medical advisers.

This was well borne out in the recent White House Conference on Children and Youth, when over 200 physicians attended; 60 odd of these were pediatricians and an equal number of general practitioners.

Being national in scope, the Conference could not be otherwise than large. About 7,000 persons attended, requiring a complicated program, which, as a matter of fact, ran smoothly. All official delegates and participants were actively engaged in general sessions as well as in "work shops." Recommendations originated in some 200 work shops.

These recommendations are the focal points on which state "commissions" will concentrate in the future. In the District of Columbia the Youth Advisory Board to the Commissioners is the official organization. Follow-up meetings to evaluate these objectives are in the planning stages.

The D. C. Medical Society was well represented in the Conference by local appointees as well as by representatives of national organizations. It is most desirable that members inform themselves in order to take part in future planning. It must be realized that medicine has a high stake in any program focused on the total welfare of children and youth.

PRESTON A. MCLENDON, M.D.
Participant in White House Conference on Children and Youth

In and Out of Focus

BY THE OBSERVER

The Multicoverage Problem

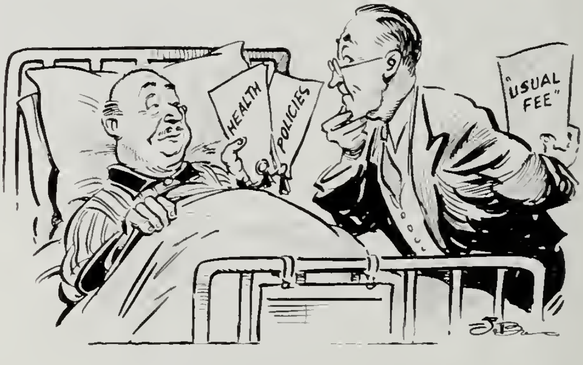
A sore point with many District physicians is the practice of some "under income level" patients of purchasing 2 or more health insurance policies with the expectation of "cashing in" on them in the event of illness. This, in the opinion of these physicians, is morally wrong. It is not intended, they say, that patients should "make money" in this fashion, and they should not be permitted to get away with it. The best way to handle this problem, they insist, is to charge a generous fee.

Others in the profession disagree strongly with this point of view. They feel that patients who are foresighted enough to purchase multicoverage and willing to pay substantial premiums for such protection should not be required by their physicians to pay more than their regular fees. Patients may well need the additional income to pay for other expenses incident to the illness. Even if this is not true, they argue, physicians cannot justify demanding more than their ordinary charges.

The Board of Trustees of Medical Service of the District of Columbia took cognizance of this situation when it inaugurated the present Surgical-Medical Contract. The Service's Handbook for Participating Physicians contains this paragraph under the heading, "Service Benefits":

"When such subscriber has other coverage or is entitled to recover surgical or medical expenses as a result of a third party's liability, the Participating Physician may make an additional charge to the subscriber to the extent of such other coverage, but not to exceed his normal charge for the services rendered."

Where the original Surgical Contract is concerned it is quite another matter. Under this Plan the Participating Physician agrees to accept as full payment what the Service pays him. In the event the subscriber has purchased other protection the physician is not entitled under the agreement to additional compensation.



Two Will Get You One

It occurred to your Observer to discuss this matter with the Chairman of the Society's Committee on Medical Care, Dr. Edward W. Nicklas. Dr. Nicklas had this to say:

> "Although there may be a small number of patients selfishly motivated to benefit monetarily or even to 'make a profit' out of illness, it is my opinion that most

of those who have multicoverage health insurance are honest in their desire to protect themselves more completely.

"One of the greatest pressures on the medical profession at present is the almost universal desire for more complete coverage. In an effort to realize this objective some unions are moving toward closed panel systems; others are building clinics and hospitals. Business management is slowly being pressured by unions to go along. It seems to me, therefore, that by expressing a desire for greater insurance coverage subscribers to Blue Cross-Blue Shield are only reflecting the country-wide trend.

"When a patient with coverage in other plans (commercial, union or other) presents forms to his physician to complete, it is only natural for him to feel that his usual fee (reduced by the service benefit clause of Blue Shield) should be paid. The Board of Trustees of Medical Service of the District of Columbia, cognizant of this thinking, has allowed him to charge an extra amount up to his usual fee.

"In taking advantage of this action, are we not losing sight of the purpose behind our support of our Blue Shield Plans? I am talking now about families whose income is below $6,000 a year! Do we honestly believe these people pay extra insurance premiums in order to make a profit out of being sick? Let us be reasonable. These folks have found that when the surgeon or medical doctor is paid there are still hospital charges, drug bills, nursing fees, perhaps convalescent nursing home care, etc.

"There are many sides to these questions and many valid arguments by those who hold opposite views to mine—and I respect them. To my mind, however, the crux of the situation is this: Are physicians justified in demanding an extra fee from subscribers to Medical Service who are below the income level established with the consent of our Society where the individual has multicoverage?

"I think we should consider that although legally entitled to a full fee in this situation we could very well take a broader, more generous view—taking into consideration the economic difficulties of the lower income group."

Solicited for his views, Mr. Robert M. Holmes, Director of Personnel, Library of Congress, and a member of the Board of Trustees of Medical Service, commented as follows:

"The motivation of doctors to accept a predetermined fee schedule as payment in full for Blue Shield subscribers with incomes below a certain level is to provide those individuals and families whose income is below average with needed medical care which they can afford. There is rather general recognition of the fact that income is a poor basis for determining what one can afford, but it is the only reasonable yardstick available.

"In my opinion, a doctor who has reduced his customary fee in order to provide prepaid medical attention which can be afforded by an individual of low income should not be required to accept the fee provided by Blue Shield as payment in full if it becomes known to him that the subscriber has additional insurance which, if added to the Blue Shield fee, would provide the subscriber with sufficient funds to pay the customary fee of the doctor.

"This does not imply that I believe the doctor should charge such a patient in excess of his customary fee. I have said that I do not think, under the described circumstances, that the doctor should be required to accept the Blue Shield fee as payment in full. However, I think he should voluntarily temper his charge with consideration of other factors which may very well be known to him in the individual case. There may be additional expenses connected with the illness. There may even be loss of income by the patient. If there are such other considerations I do not think the doctor should ignore them in charging above the scheduled fee.

"It is my belief that a doctor might feel pretty unhappy if, after reducing his usual fee for someone who could not normally afford the care he needed, he were asked to sign papers for an insurance company and thereby learned that the patient would have ample money to pay the regular fee or, worse still, would even be making money as a result of the injury or illness."

Those who hold contrary views to the above may wish to express them in the section in the MEDICAL ANNALS devoted to correspondence. Communications on this or any other subject of current interest should be addressed to the Editor of the ANNALS.

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". . . Up In Arms. . ."

According to the *Journal of American Insurance*, such incidents as the following have "doctors across the Nation. . . up in arms."

A patient was brought into a hospital near death from loss of blood as the result of a stomach hemorrhage due to an ulcer. Transfusions did not help and 3 of the 4 doctors who examined him stated he was beyond help. The fourth decided to operate on the "remote chance" that the bleeding could be stopped. The operation was a success and the man lived.

In his haste the surgeon left a gauze sponge inside the patient's abdomen. Although the patient was deeply grateful to the surgeon for saving his life, he was encouraged by his friends to sue him for "malpractice." The result was an award to the patient of more than $90,000.

In many jurisdictions anesthesiologists have become wary of using spinal anesthesia because courts have held that it is an "absolutely safe procedure." If anything goes wrong the doctor is considered negligent. "Such rulings," the *Journal* states, "fail to take into account the risk inherent in almost any operation or treatment. . . ."

"He may never use a left-handed toothpick again!"

A housewife sued a physician for $10,000 when she developed a rash following penicillin treatment. In order to avoid going to court the doctor settled for $400, although he was not guilty of any negligence.

"Similar cases, covering a variety of real and imagined grievances," the *Journal* states, "have increased sharply since World War II, and are being filed at the estimated rate of 6,000 or more a year." Surveys disclose that an estimated 1 out of 7 doctors have been sued. In California it is 1 out of 4, but New York and the District of Columbia, the *Journal* observed, are not far behind.

It is estimated that insurance companies are paying out an estimated $45 million annually in court awards, out-of-court settlements, and expenses due to liability claims.

> "Some of the payments are justified, for sooner or later even the most cautious doctor is likely to cause injury to a patient under circumstances that make him legally, morally and financially responsible. However, medical authorities contend that there is an alarming tendency today for courts to rule for the patient, not because the doctor was negligent, but because the judge or jury feels sorry for the apparently injured person.
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> "As a result, the need for insurance against this increasingly serious occupational hazard has become acute. An estimated 93 per cent of all U. S. doctors carry some form of professional liability coverage to protect them against the consequences of both warranted and unwarranted claims."

Physicians generally now seek greater protection at, of course, a greater cost. Premiums vary with the doctor's specialty, and the loss experience in the area. Insurance costs like other expenses contribute to higher medical bills. More serious is the effect the situation has had on the use of advanced technics and modalities. If a physician departs from accepted methods of treatment he may invite suit and, as a consequence, many sleepless nights.

What success has attended efforts to prevent malpractice suits? It appears that California has been most active in this field.

> "Largely as a result of the educational campaign . . . ," the *Journal* states, "there is hope the rising tide of claims can be checked. The San Francisco Medical Society reports liability claims against its 2,100 members declined from 10.9 per 100 doctors in 1957–58 to 7 per 100 last year.
>
> "Insurance rates, reflecting the improvement, were reduced an average of 5.4 per cent for California physicians and surgeons this year—a happy indication of better times for both doctors and insurance companies. (One company opened its books to show it had lost approximately $1.5 million over the preceding 9 years on

its professional liability coverage for 4,000 northern California doctors.)

"The California Hospital Association, which represents 400 of the state's 421 hospitals, also reports encouraging success in handling the liability problem with the aid of insurance. In 1954 the Association decided to set up a 'group' insurance plan that would pool the risks and also pool knowledge about the causes of malpractice claims in hospitals.

"The insurance company hired a full-time expert in hospital administration to review all accidents and claims, and to identify the hospital practices causing the trouble. On the basis of his recommendations, the Association now requires member hospitals to put bed rails on all beds and to conduct an extra sponge count after surgery to make sure nothing is accidentally left inside a patient.

"In 6 years falls out of beds have been reduced 65 per cent—and hospital insurance rates have fallen from $100 or more per bed to $42.50 for coverages of up to $500,000. The California plan has now spread to Utah, Montana, Arizona, Nevada and Iowa, and is being considered elsewhere.

"In several states efforts are being made in the courts to curb the filing of nuisance suits. Some have tried calling in impartial medical experts to testify in personal injury cases, including alleged medical malpractice. Success has been mixed, although New York reports questionable claims have dwindled slightly since its plan went into operation 7 years ago.

"Local bar and medical associations have gone one step further in Tucson, Arizona, by setting up a 20-member panel of doctors and lawyers to screen all malpractice claims. If the panel says the claim is unjustified, it usually is dropped. But if the group rules for the patient, the Medical Society guarantees to coöperate in obtaining medical testimony for both sides. Frequently a settlement is made out of court.

"In all these efforts, the aim of doctors and insurance companies is to see that genuine victims of medical mishaps are fully compensated without having to resort to a suit. But they are equally determined to resist attempts both in and out of court to hold doctors responsible for all the ills that plague mankind."

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Blue Shield's Uncharted Areas

When Dr. H. Russell Brown of Watertown, South Dakota, became a member of the AMA's Commission on Medical Care Plans and subsequently Chairman of its Committee on Miscellaneous and Unclassified Plans, his "original thinking and convictions regarding some closed panel plans were prejudiced and inaccurate because they were based on lack of information and much misinformation, particularly regarding the need for, and the quality of, medical care rendered by some of these mechanisms."

Dr. Brown states that he and his 6 associates own a "moderately complete medical facility" and have never had any affiliation with closed panel practice. All of their income is derived from services rendered on a fee-for-service basis. Nevertheless, Dr. Brown confesses that his "belief in the principle of unalterable free choice of physician also changed. It appears to me that free choice of physician is not a fundamental and unalterable principle if it is to be used as a slogan for defense of the status quo, or if it is regarded as a method to gain access to a market. It becomes a sound principle only when accompanied by reasonable assurance by the medical profession of the provision of good medical care at a reasonable cost. . . ."

Dr. Brown's committee studied some 250 plans involving more than 5 million beneficiaries. In an address before the 1960 Blue Shield Professional Relations Conference last February, he described typical closed panel plans in various categories. He repeated the familiar arguments in their favor, among them the following:

Many closed panel plans—

"Provide the individual with a nearly total predictable cost for his medical care and an opportunity to pay for it on some budgeting basis.

"Concern themselves with regard to the quality of medical care rendered. This is above and beyond the efforts of the organized medical profession, which occur largely because of hospital staff studies and controls.

"Encourage ambulatory and outpatient care, thus reducing total health care costs by tending to minimize hospital stays.

"Encourage early diagnosis and treatment by covering their costs to a rather complete extent, and thus removing financial barriers to such care."

He observed that some closed panel plans have "developed educational programs on health matters for their beneficiaries."

Having been requested to discuss the probable effects of closed panel plans on Blue Shield and other voluntary insurance programs, he put his answers in the form of questions. They were in substance as follows:

Should not Blue Shield consider now the impact of pressures from unions and other groups for more comprehensive coverage at the lowest possible cost, or at least at a predictable cost?

Can it not be anticipated that if Blue Shield Plans do not meet the demands of segments of the population from which pressures arise, they will turn to other "mechanisms"?

What would the impact on Blue Shield Plans be if closed panel practice should markedly increase and physicians in private group practice decide to invade the prepayment field?

What will be the effect if management-sponsored and financed health care programs increase?

Now that Government employees are soon to be entitled to health insurance benefits are not various types of medical care programs to be subjected to more critical analyses and comparisons than before?

The answers to these questions, Dr. Brown states, will largely determine the future of Blue Shield Plans. He then summarizes the demands which, in his opinion, will be as follows:

"1. Broader or more comprehensive medical care coverage. . . .

2. . . . An opportunity to budget . . . at least a substantial percentage of [the cost of medical care].

3. Good quality medical care at a cost that can be afforded. . . .

4. Coverage for the aged.

5. Some type of coverage for the more serious or complicated surgical or medical cases. . . .

6. Good medical care for the indigent. . . ."

Dr. Brown concludes: "In past years Blue Shield entered uncharted areas with resultant and outstanding success. That same experimental and adventuresome attitude must be brought to bear on the new and different problems that face us now and that will develop in the future. Blue Shield cannot afford to become complacent toward change or progress, for such was the attitude toward medical care insurance two decades ago before Blue Shield was originated. There is no time to staidly review increasing enrollments, financial stability and past successes."

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Only Yesterday

In many ways the atmosphere at meetings held in the Society's building prior to World War II was that of a club. For years Wednesday nights had been set aside by Washington physicians for those meetings. Their families knew this and saw to it that nothing interfered.

Faithful attendants might find the subject under discussion uninteresting. However, fraternization with colleagues was thoroughly enjoyed to an extent unknown today. Many enduring friendships were made at these meetings.

Your Observer arrived on the scene near the close of this period. He recalls that the "old guard" could always be counted upon to be present. They sat in the same seats week after week. Although scientific meetings were more popular than business sessions, they seldom missed either. Some were vocal at what can be best described as town hall sessions. They were unusually knowledgeable about parliamentary procedure and frequently conspired to confuse the chairman, who was usually the president of the Society. However, this was done good-naturedly and generally in a spirit of fun. Discussions of proceedings often lasted far into the night.

An example of the close friendships attributed to participation in the Society's meetings came to your Observer's mind the other day. When in 1920 the present building at 1718 M Street, N.W., was completed, it had to be furnished. Funds were scarce, because all monies had been used to pay for the building. Seats for the auditorium were, of course, essential and somehow funds needed to purchase them had to be obtained. It was finally decided that each member should purchase a seat at the cost of $10, in return for which he would have his name plate affixed to the back of the seat. As there were 476 seats there was not a sufficient number of members at that time to buy all of them. However, over half were paid for by members individually.

Some years after his arrival in Washington, your Observer received a call from the widow of a physician. She said her husband had been a lifelong friend of a practitioner whom he had met at the Wednesday night meetings. She understood that this friend had purchased a seat. She wanted to know if in her husband's memory she could have a plate placed on the back of the seat next to her husband's friend. This was found possible and a transfer of a name plate was made.

Such close relationships on the basis of Society attendance is no longer possible. Wednesday night meetings have long since been discontinued. An attempt was made to resume them after World War II but conditions had vastly changed. Some 300 physicians returned from the service. In addition, hundreds of new physicians who had not previously practiced in Washington decided to establish themselves here. All were naturally concerned with getting their practices under way. There was little time in the struggle for survival to attend meetings regularly. Then, too, medical schools and hospitals became actively interested in postgraduate education for physicians in practice. There were, of course, other factors, but these were the major ones.

These changes were regretted by many older physicians, but adjustments had to be made. Although the intimacy existing before World War II was no longer possible, successful efforts have been made to maintain personal relationships through such media as the Society's committee activities, the MIDWINTER SEMINAR, the ANNUAL SCIENTIFIC ASSEMBLY, membership luncheons, and the Secretary of the Society and his staff. Because of his long association with the Society and his experience in organizational work, the Secretary has found many opportunities to create good will between members and the Society.

Revival of monthly meetings is now in progress. If attendance can be stimulated there will again be further opportunities for fraternization.

Friendly relationships among members obviously contribute much to the strength of any organization. They frequently generate a deep feeling of loyalty and a willingness to sacrifice for the group. It is not possible to return to the "old days" but the Society can retain, by means which have already been described, satisfactory personal relationships.

It seems to your Observer that considering the great changes which have taken place the Society has made commendable progress in this direction and in doing so has won the respect and confidence of the membership.

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The Cocktail Hour

What is the big difference between a cocktail and a cocktail hour? According to Dr. Allan J. Fleming, writing in *The Journal of the AMA*, it is "usually about an hour and 25 minutes."

Perhaps in no city is the cocktail hour more popular than in Washington. Dr. Fleming's observations, therefore, seem particularly pertinent and of interest to readers of this column.

"Some of us who have watched the progress of social drinking during the past 30 years are beginning to wonder if we are not overemphasizing drinking in our business, professional, and social life. Few dinners, social or otherwise, start off without a cocktail hour. The cocktail party for many has become the sole form of entertainment. As such, it has but one merit, in that it enables us to repay a large number of social obligations with a minimum of effort."

Turning his attention to professional meetings and conventions, he observes that they are "liberally interspaced with cocktail hours, many of which are sponsored by manufacturers to create good will for their products. Unfortunately, at the end of the party many guests cannot remember the name of the host, the name of the product, or how they got there in the first place."

He provides his readers with an amusing description of a long established social function—the annual dinner.

> "It is customary for clubs, societies, institutions, and national groups of one sort or another to climax their annual meeting or some special event with a grand banquet. To this, they invite a speaker of some renown to lend dignity to the big affair. . . .
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> "The evening usually begins at 6:30 p.m. with a social hour to mark the end of a wearying day of lectures, demonstrations, and conferences. Along about 7:45 p.m. the members struggle boisterously into the banquet hall carrying the final highball with them. As soon as the guests of honor . . . are settled at the head table, 40 members of a local waiters' union begin slinging shrimp cocktails around and distributing a carefully calculated ration of three-quarters of a piece of celery and six-tenths of an olive per person. By the time the seven-course meal is finished and cigars have been lighted, a heavy pall of somnolence has descended from the frescoed ceiling and massive crystal chandeliers of the banquet hall and spread its lethargic influence over the assembly. . . .
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> "The chairman arises and spends half an hour introducing guests who need no introduction. . . .
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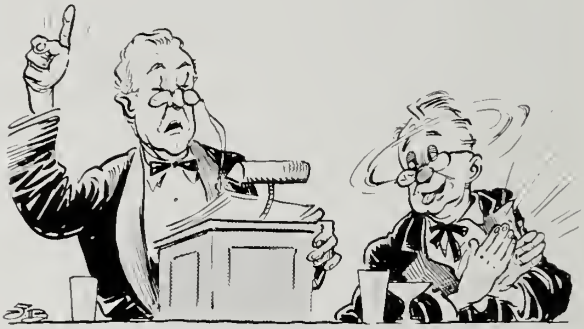
> "The guest speaker's turn comes at last, and for 45 minutes he addresses a tranquilized audience which applauds automatically at appropriate intervals without becoming fully conscious. As the meeting breaks up, everyone admits the speaker was good, perhaps a trifle long, but very good. It is the kind of praise we would expect from people who have just been warned of the dangers of socialism on a full stomach."



"Jush wunnerful! . . . Whash he shayin'?"

How serious is the social drinking problem?

"Experts in the field tell us," Dr. Fleming states, "that 1 of every 15 social drinkers in the United States becomes an alcoholic. In this respect, we are ahead of the Russians but way behind the French, where 1 of 10 is considered a problem drinker. The Frenchman's annual intake of pure alcohol is 52 pints as compared to 15 pints in the United States. For years, our District of Columbia has been trying to equal this record, but so far, the best it can do is a measly 20 pints. . . .

"If we are to do anything about excess social drinking let us leave Congress, the Supreme Court, and the Constitution of the United States out of the picture. Business and professional groups could reduce the frequency and length of the predinner cocktail hour so that alcohol may serve a useful purpose as an apéritif or stomachic rather than a stimulus to excess noisy conversation.

"In the home, there are other ways to entertain than the cocktail party—dinner, if you wish, but never so large that you are unable to become acquainted, really acquainted, with your guests and where conversation can be carried on in an environment free from incidental music, a background of television noise, or a pet poodle chewing at the cuff of your pants."

T. W.

"In and Out of Focus" will not appear in the June, July and August issues of MEDICAL ANNALS. It will be resumed with the September issue.

RELATIVE VALUE SCALE IN THE DISTRICT OF COLUMBIA*

C. WILLARD CAMALIER, JR., M.D.

Immediate Past Chairman, Committee on Medical Care, The Medical Society of the District of Columbia

Any discussion of our experiences with the use of the Relative Value Scale in the District of Columbia will of necessity be limited because our Scale was adopted less than a year ago. However, it is my intention to outline the steps taken in reaching our goal, the problems faced, and the reasons for producing a totally integrated scale in contrast to a 4-part one such as exists in California.

The necessity for a scale of related unit values had been under discussion within our Committee on Medical Care for about 5 years prior to actual implementation of the project. All of us in this field of medical economics found ourselves fully disgusted with the work involved in working out a fee schedule in dollars every time the necessity for such a schedule arose. The needs became acute when we entered into negotiation with the Department of Defense in setting up the local Medicare program. After 3 days of almost fruitless discussion we learned that heavy reliance was being placed by Government representatives on the California scale of values, and only after becoming aware of this were we enabled to speedily work out a mutually acceptable schedule of Medicare fees. Union contracts requiring the coverage, not then available in any form here, also pointed up our need. When the Government Employees Health Benefit program was seen on the horizon it was even more imperative that this Society and our local Blue Shield Plan should have a relative value scale developed to meet these and future problems. The Committee on Medical Care so recommended to our Executive Board, which in turn ordered the Committee to produce one. Thus over 2 years ago we began to develop such a scale for this area, for included in this project were the counties of Prince Georges and Montgomery in Maryland as well as Arlington, Fairfax, and the City of Alexandria in Virginia.

In determining the values of units, reliance was placed upon the organized and representative Sections or societies within the framework of the District of Columbia Medical Society. The term "Sections of the Society" refers to the organized groups which represent the various types of practice or specialties in this city. In this connection, because of our geographical situation, these Sections have in them many members from our neighboring states. A general questionnaire to the membership at large was rejected. Past experience on a pilot study questionnaire used 5 to 6 years before had led us into utter confusion and to results that were, for all practical purposes, valueless. The Sections were furnished standard nomenclature from Blue Shield, Medicare, and California schedules as a guide and were asked to furnish the Committee with suggested unit values for the procedures named and to insert new procedures, if desired, together with their unit values. It must be said that long and careful work was done by these groups in preparing their scales for the Committee's consideration.

All such unit values determined were brought to the Committee on Medical Care, whose function then became to bring suggested scales into one balanced master scale of values. Our Committee was representative of all types of practice within the Medical Society, and although our meetings were long, frequent, and at times lacking in harmony, the resulting Relative Value Scale was unanimously approved by the Committee. In determining the final value to be assigned to any item, comparison was made between the California scale, Medicare fees reduced to units, local Blue Shield fees reduced to units, and the units suggested by the group in our Society so concerned. After preliminary values had been designated, representatives of the various components of the Society met with the Committee and reviewed these figures as well as the overall picture. The completed Relative Value Scale was then examined by the Executive Board of the Society and presented to the membership, which approved its adoption without a dissenting voice.

EDUCATION OF PHYSICIANS

Unfortunate and unexpected newspaper publicity produced a difficult situation in dealing with physicians. This was the appearance of an article stating that we were standardizing all physicians' fees in this area. Only by repeated assurances to our leaders in the various specialties were we able to calm the fears aroused and have the work go forward. We also found certain specialty groups whose basic understanding of the entire problem was not complete, and these groups had a tendency to supply the Committee with obviously elevated unit values. Careful education of the leaders and careful explanation of the need for correct values in every field brought a speedy reëvaluation of the suggestions and complete satisfaction to all concerned parties.

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* Presented at the Fourth Regional Conference on Relative Value Studies sponsored by the American Medical Association and held at the Mayflower Hotel in Washington, D.C., March 26, 1960.

It is impossible to leave this subject without reference to the problems of the internist. We are all aware of the situation of the specialist in internal medicine, which is of national scope and not peculiar to the District of Columbia. The Committee and I myself am extremely sympathetic to the dilemma and to the threat which faces this group in the profession. Our own experiences may prove of interest to you. The Section on Internal Medicine sent to us a scale of values listing office, hospital, and home values for every procedure said to be peculiar to an internist's practice in so far as office visits, complete work-ups, consultations, etc., were concerned. This proved to be unwieldy to calculate and also raised two primary questions. Who should be considered an internist, and if a general practitioner performed the identical service should he be paid the fee listed for internists? In the absence of any answer to these problems and to the corollary one of paying higher fees to an internist if he functions, as is often necessary, as a general man, the Committee felt obligated to reject the suggested unit values from the Section on Internal Medicine and to adopt a method similar to the original California study, wherein differential fees are possible for work done over and above the routine type of care. In other words, it is recognized that a specialist in internal medicine, when functioning as an internist, does do a type of work not carried out in routine medical care and should be compensated for this, but when he practices as a general practitioner he is not entitled to a higher fee than the general man. Conversely, if the man classified as a general practitioner does a diagnostic work-up characteristic of that done by an internist, he should be compensated accordingly. We have no other answer at this moment, although it has been and is under constant discussion and will be until a better solution is reached.

VALUE OF AN INTEGRATED SCALE

The decision to produce an integrated scale of values was reached after careful consideration. The reasons were as follows:

1. Our local Blue Shield Plan was consulted and expressed the opinion that it would be as easy to work with a fully integrated scale as with a divided one, and that changes in value assigned to units in terms of dollars could be fluctuated for the entire scale as well as for a section of it.

2. By integrating our values we have eliminated attempts by segments of the Society to procure a larger conversion factor for their group at the expense of others in the profession who may be doing the same type of work or even those in different fields of medicine.

3. It was felt that each and every function performed by a physician is definitely related to other procedures (ignoring the question of specialist groups) and that these relationships could be best expressed by correlating one with the other and expressing them in unit terms. The only practical way to do this was by an integrated type of schedule.

Throughout our preparation and presentation of this unit study it has been constantly pointed out that this scale shall be considered a "live scale" and one which we expect to change, alter, and modify as time passes and as our experience points out the necessity for change. To prepare such a study and say "this is it" would be foolish. It is expected that unit values will fluctuate as methods of practice change. Some items now in the schedule will be dropped as they cease to be part of our practices, and as new procedures come into use, they will be incorporated into their proper places. The dollar value assigned to a unit will be fluctuated as circumstances dictate. So it is anticipated that this Committee will be active for years to come.

A mechanism for revision or appeal is also in our proceedings. It is not anticipated that individual dissatisfaction with specific items will be a source of complaint. However, if a representative group, such as the Section on Pediatrics, wishes a review or a change of item or items with which they are concerned, official request from said group should be forwarded to the Committee for study and recommendation to the Executive Board of the Medical Society. From this point it must be presented to the membership of the Society for final determination, since Society action was needed for the original adoption. Thus there exists a channelized method of altering items and/or unit values within our Society framework.

It has been my intention to present here our efforts to date and to say that we believe we have utilized an inexpensive and yet representative method of obtaining fair unit values for use in our Relative Value Scale. It is not finished and never will be a completed work, but we do have a mechanism for alterations. Our problems have not been completely solved although complaints received have been very few. As yet there has been no dollar value assigned to this scale. Negotiations will open shortly with our Blue Shield Plan, utilizing the scale, and with other insurance and union groups. However, the use of the scale by physicians in their own practices is increasing, and therefore the fairness of fees when questioned is open to less complaint. Our local Blue Shield Plan and our Medical Society now have a basic framework upon which they may build any type of coverage for medical care required of them in these changing times. With the increase in third party intervention in medicine, the public, the third party, and the physician cannot help but benefit from the use of the Relative Value Scale.

DOCTORS' DAY 1960

Doctors' Day, March 30, 1960, closed on a gay note when the Woman's Auxiliary to the Southern Medical Association honored those doctors who had been members of the Association for 30 years or more at an evening reception in the Medical Society's library. Framed with red carnations was the Doctors' Day Proclamation which we had received earlier from the District Commissioners. Red carnations, symbol of Doctors' Day, also decorated the table of refreshments. Special greetings, sent from the White House, were read by the Doctors' Day Chairman.

Honored guests included the following physicians: Drs. Harry Ford Anderson, Harry S. Bernton, Joseph B. Bogan, Grafton Tyler Brown, Leo T. Brown, William Earl Clark, Harry Lee Claud, Frederick O. Coe, Jerome F. Crowley, Charles J. Demas, Frank J. Eichenlaub, J. Bay Jacobs, Clapham P. King, Edward Lewis, Arthur B. Little, Frank M. McChesney, Preston A. McLendon, Edgar M. McPeak, John Minor, Benjamin L. Naiman, Arch L. Riddick, Roy Lyman Sexton, Walter O. Teichmann, George B. Trible, Charles Stanley White, Frank L. Williman and Wallace M. Yater.

DOCTORS' DAY PROCLAMATION PRESENTED TO SOUTHERN AUXILIARY

Brig. General A. C. Welling (right), Engineer Commissioner of the District of Columbia, presents Mrs. Jonathan M. Williams, Doctors' Day Chairman of the Woman's Auxiliary to the Southern Medical Associaiion, with a framed copy of the Doctors' Day Proclamation, which designated March 30 as a day to honor Washington physicians. Members of Mrs. Williams' committee accompanied her to the District Building. Seated at the table are (left to right) Mmes. Roger S. Williams, William J. G. Davis, Henry A. Hornthal, and James E. Wissler. Lending both moral and masculine support to General Welling on this occasion was District Commissioner David B. Karrick.

Earlier in the day carnations were pinned on many of the doctors at the hospitals. At Georgetown University Hospital this was done by the wives of the residents. WMAL-TV caught Mrs. Jed W. Pearson, a member of the Ladies' Board of George Washington University Hospital, pinning a red carnation on Dr. Charles S. Coakley, a member of the medical staff. A special Doctors' Day mass, followed by breakfast, was celebrated at Providence Hospital.

Mrs. Jonathan Marshall Williams
Chairman, Doctors' Day Committee, District of Columbia Auxiliary to the Southern Medical Association

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive reviews in the interest of our readers and as space permits. Physicians are urged to submit reviews of additional books which, in their opinion, merit comment.

First Aid, Diagnosis and Management, 5th ed. Warren H. Cole, Professor and Head of the Department of Surgery, University of Illinois College of Medicine; Surgeon-in-Chief, Research and Educational Hospitals, Chicago; and Charles B. Puestow, Clinical Professor of Surgery, University of Illinois College of Medicine and Graduate School; Chief, Surgical Service, Veterans Administration Hospital, Hines; Attending Surgeon, Research and Educational Hospitals; Senior Surgeon, Henrotin Hospital; Associate Surgeon, Presbyterian-St. Luke's Hospital, Chicago; Colonel, M.C., A.U.S. With 16 Contributing Authors. Price, $6.25. Pp. 420. New York: Appleton, 1960.

Medical Care of the Adolescent. A Textbook Concerning the Medical Care and Understanding of Adolescents Themselves and of Their Disorders. J. Roswell Gallagher, M.D., Chief of the Adolescent Unit, The Children's Hospital Medical Center, Boston, and Lecturer on Pediatrics, Harvard Medical School, and The Staff Physicians of the Adolescent Unit. Price, $10.00. Pp. 369. New York: Appleton, 1960.

Anatomy. A Regional Study of Human Structure. Ernest Gardner, M.D., Wayne State University; Donald J. Gray, Ph.D., Stanford University; and Ronan O'Rahilly, M.Sc., M.D., Wayne State University. Illustrated by Caspar Henselmann. Price, $15.00. Pp. 999. Philadelphia: Saunders, 1960.

From Fish to Philosopher. The Story of Our Internal Environment. With supplement on Dropsy and Diuresis, with collaboration of Ciba Pharmaceutical Products, Inc. Homer W. Smith. Pp. 304. Summit, N.J.: Ciba Pharm. Products, Inc., 1959.

Communicable and Infectious Diseases: Diagnosis, Prevention, Treatment, 4th ed. Franklin H. Top, A.B., M.D., M.P.H., F.A.C.P., F.A.A.P., F.A.P.H.A., Professor and Head, Department of Hygiene and Preventive Medicine, State University of Iowa, Iowa City, Iowa; Director, University Department of Health, and Director, Institute of Agricultural Medicine, State University of Iowa; Consulting Director, State (of Iowa) Hygienic Laboratories; Consultant in Infectious Diseases, University Hospital, Iowa City, Iowa; Consultant, Communicable Disease Center, U. S. Public Health Service, Atlanta, Ga.; formerly Professor of Epidemiology, School of Public Health, and Professor of Pediatrics, College of Medical Sciences, University of Minnesota, Minneapolis, Minn.; formerly Clinical Professor of Preventive Medicine and Public Health, Wayne State University College of Medicine, Detroit, Mich.; and formerly Director, Herman Kiefer Hospital, Detroit, Mich., and 21 collaborators. Price, $20.00. Pp. 812, with 122 figures and 15 color plates. St. Louis: Mosby, 1960.

Ciba Foundation Colloquia on Ageing. Volume 5. The Lifespan of Animals. G. E. W. Wolstenholme, O.B.E., M.A., M.B., M.R.C.P., and Maeve O'Connor, B.A., Editors for the Ciba Foundation. Price, $9.50. Pp. 324, with 58 illustrations and Cumulative Index to Volumes 1–5. Boston: Little, 1959.

Ciba Foundation Study Group No 3. Cancer of the Cervix. Diagnosis of Early Forms. In honour of Prof. Dr. C. Kaufmann. G. E. W. Wolstenholme, O.B.E., M.A., M.B., M.R.C.P., and Maeve O'Connor, B.A., Editors for the Ciba Foundation. Price, $2.50. Pp. 114, with 27 illustrations. Boston: Little, 1959.

Ciba Foundation Symposium Jointly with The International Union of Biological Sciences on Biochemistry of Human Genetics. G. E. W. Wolstenholme, O.B.E., M.A., M.B., M.R.C.P., and Cecilia M. O'Connor, B.Sc., Editors for the Ciba Foundation. Price, $9.50. Pp. 347, with 60 illustrations. Boston: Little, 1959.

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Dr. George N. Papanicolaou
were added to the sands of time
with his introduction of
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This Discovery
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in
the diagnosis of
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The proper use of the "Pap" Smear will detect cervical cancer in the preinvasive stage where the disease is 100 per cent curable.

Of special interest to physicians is a new film on the subject, "Routine Pelvic Examination and the Cytologic Method," 16 mm., 14 minutes, color and sound.

Available upon request, a booklet entitled "Cytology and Cancer of the Cervix" and the monograph, "Cancer of the Female Genital Tract."

Call or Write:

American Cancer Society
District of Columbia Division, Inc.
810 18th Street, N.W.
Washington 6, D.C.
Executive 3-3690

On the Lighter Side

What with spring now well established and the long warm summer evenings practically on our doorstep, the boat-owners are reving up their motors, pouring over their itineraries for those short evening trips, and stocking up for long, pleasant week-ends of cruising to practically everywhere.

The Barnacle Bills, who have owned and sailed a boat for these many odd years, probably know all there is to know about boats: their care, their navigation, their upkeep, how many cans of beer can be stowed under the bunks, and what to do with the foam-rubber cushions. But the neophyte boat-owner whose number is fast becoming as numerous as a fruit fly's descendants, is owning a boat for the first time. His innocence and naïveté make it imperative for all landlubbers to stay ashore until he has learned a few lessons in starting and steering his boat, and, of course, the most important lesson—how to stop the darn thing once it has become drunk with power on the waves. I once knew a nautical type who left the printed easy-to-follow directions on his mantle piece at home and who forgot the stop-the-thing combination. He had to sit it out while circling and circling until the gas tank ran dry. Then the poor misguided creature had to pole the boat into the slip in order to get home in time to change his shirt for work.

Safety afloat, therefore, is one of the most important objectives of all boatmen, experienced or new. How often do we read of explosions wrecking navigable pleasure craft and dunking the guests in the drink? Or worse, maiming them for the duration of the summer!

If you are an invited guest on a pleasure craft make sure the captain has checked the bilge and aired it out. If he hasn't, then remain ashore until he has started the motors; if the boat doesn't go up like an atom bomb, go aboard cautiously. Don't feel bad if everyone aboard looks at you like you have scrambled your marbles just because you go about in a half-bent position sniffing like a hound dog on a scent. You're sniffing for dangerous gas fumes! Remember that less than half a cup of gas can produce enough dangerous power-packed fumes to blow a 50-foot boat and everyone aboard to Kingdom Come.

Fumes can originate from gasoline or bottled gas lines. The leak is usually caused by corrosion, faulty connections, loosened couplings or a leaky petcock. Remember, it is far better to be considered a case for the head doctor than to be scooped up in a shovel without one connecting shred.

Dangerous fumes will lay in the bilge indefinitely unless they are taken out by a blower, or unless the bilge is thoroughly aired. If these lazy languid fumes reach the starter, just one touch of the starter button will be enough to set off a combustion the likes of which will start you on a harp-playing career out of earshot of the music critics.

Safety afloat not only means properly preparing your pleasure craft before embarking on a cruise but also what to have along for emergency repair. Often a boat, large or small, will spring a leak after hitting a submerged obstruction. Temporary hull repairs can be made by inserting a tapered wooden plug into a small hole by the judicious use of a hammer. Larger holes can be temporarily covered by stuffing cotton batting into the hole and then nailing a square patch of canvas over it. This procedure will suffice until you can get to a hoist.

And remember that the electric current in nearby wiring may cause your compass to deviate unless the nearby wires are twisted to cancel out the magnetic field from the direct current. Also—keep a weather eye out for squalls. A sudden squall with its attendant high velocity winds can wreak havoc on a small craft and its occupants. Look for the squall clouds. The lower the base of the cloud, the stronger the wind velocity will be.

If you have been wanting a power boat and you would like to experiment with a used boat before wrecking a brand new one, contact Dr. Robert Simpson, the pediatrician, or Dr. Francis X. Richardson. They want to sell theirs. You are welcome, fellows.

* * * * *

Chuckle note: An attractive and chic woman psychiatrist attended a lecture. A man sitting next to her began to pinch her in a soft spot. Annoyed, she was about to give him an angry piece of her mind. Then she relented. "Why should I get angry?" she decided. "After all, it's his problem."

J. Earl Kadan, M.D.

News and Personals

MEETINGS

The 109th Annual Meeting of the American Medical Association will convene at Miami Beach, Florida, June 13–17. Approximately 2,000 physicians, all outstanding in their field, will participate in presenting the scientific program, which will be held at the Fontainebleau Hotel and in the Miami Beach Auditorium. About 290 exhibits will be on display in the Miami Beach Exhibition Hall.

The official delegation from Washington will include the Medical Society's delegates to the AMA, Drs. Raymond T. Holden and Ralph M. Caulk; Dr. Victor R. Alfaro, President, and Theodore Wiprud, Secretary, of the Medical Society. Undoubtedly the climate and recreation afforded in this beautiful city will attract many physicians from Washington and elsewhere.

The eighth annual **National Civil Defense Conference** will be held at the Americana Hotel in Miami Beach, Saturday, June 11, immediately prior to the opening of the AMA meeting. The Conference, sponsored by the AMA's Council on National Security, will be presented by the Medical Department of the Navy under the direction of Rear Admiral Calvin B. Calloway, M.C., U.S.N., Assistant Chief of the Bureau of Medicine and Surgery for research and military medical specialties.

Fabulous Miami Beach
Site of the 109th Annual Meeting of the AMA

The District of Columbia Division of the American Cancer Society is sponsoring a meeting in the Washington Hospital Center auditorium on Thursday, May 19, at 8 p.m

Mrs. Paul A. Doehler, Director of Esophageal Speech at Massachusetts Eye and Ear Infirmary, Boston, will speak on "Rehabilitation of the Laryngectomee." Physicians and other interested professional personnel are invited to attend the meeting.

Another telecast in the **"March of Medicine" series,** produced and sponsored by **Smith Kline & French Laboratories** in coöperation with the American Medical Association, will be broadcast over NBC-TV on Friday, May 27, at 8:30 p.m., E.D.T. Entitled "MD USA," the report will depict the work of five American physicians in various geographical areas of the country. Sequences were filmed in Alaska, Arizona, Louisiana, Pennsylvania, and Wisconsin. Participating physicians will be Dr. William Mills, orthopedic surgeon of Anchorage, Alaska; Dr. David B. Dolese, of Ganado, Arizona; Dr. Julius M. Fernandez, obstetrician of Franklin, Louisiana; Dr. David G. Moyer, a "family doctor" of Lansdale, Pennsylvania; and Dr. Daniel E. Dorchester, a "flying doctor" who cares for migrant workers near Sturgeon Bay, Wisconsin.

GENERAL NEWS

The Executive Board of the Medical Society of the District of Columbia met in regular session on March 28. Presiding was Dr. William Ross Morris, Chairman. The Board voted to continue its membership in the Conference of Presidents and Other Officers of State Medical Associations.

In response to an invitation to furnish 3 representatives to the National Congress on Prepaid Health Insurance, to be held in Chicago, May 13 and 14, the Board designated Dr. Edward Nicklas, Chairman of the Committee on Medical Care; Theodore Wiprud, Secretary of the Society; and Dr. Ralph M. Caulk, who will also represent the American Roentgen Ray Society. Dr. Donald Stubbs will be on hand as Chairman of the Board, National Blue Shield.

Mr. George W. Cooley, Secretary of the Council on Medical Service of the AMA, had asked that the Society be represented at a national conference of representatives of state medical associations, preparatory to the 1961 White House Conference on Aging, to be held in Chicago, April 22–23, 1960. The Board voted to ask Dr. Jack Kleh, Chairman of the Society's Committee on Aging and also Chairman of the District's Council on Aging, to represent the Society.

The Secretary notified the Board that Mrs. Samuel E. Watkins, the widow of a member, had presented the Society with a composite portrait of it members taken in 1908.

The Council of the British Medical Association has established an **International Medical Advisory Bureau** which will provide a personal advisory service to medical practitioners visiting the United Kingdom.

Information is available at the Bureau on postgraduate education facilities, and visits to hospitals and clinics can be arranged. Assistance will be given in finding suitable hotel and lodging accommodations. In addition, general information on cars, sports, traveling, exhibitions, theaters, etc., is available.

Visitors are urged to inform the Bureau of an intended visit as much in advance of arrival as possible. Other information such as length of stay, main objectives of visit, etc., will enable the Bureau to provide the best service. All communications should be addressed to the Medical Director, International Medical Advisory Bureau, Tavistock Square, London, W.C.1, England.

The Association of American Medical Colleges has announced a unique fellowship program designed to further medical education by sending future doctors to remote areas of the world. The three-year program, established under a grant of $180,000 from Smith Kline & French Laboratories, is open to all medical college students who have completed their third year of study. Scheduled to begin this summer, the program will permit an average of 30 students to participate each year.

Awards will be made on the basis of the applicant's ability and objectives, with special consideration being given to those programs which cannot be realized in the United States and through which the student can bring back valuable knowledge to this country. Complete information regarding the plan may be obtained from the Association of American Medical Colleges, 2530 Ridge Avenue, Evanston, Illinois.

The Section on Gastroenterology elected the following officers, April 4, to serve during 1960–61:

Dr. Edward S. Witowski, Jr., *Chairman*; Dr. John O. Schreiber, *Vice Chairman*; and Dr. Edward Wilson, *Secretary-Treasurer*.

Following the business session, Dr. Arnold Schaefer, Chairman of the Inter-departmental Committee on Nutrition, National Institutes of Health, gave an inspiring address on "World Nutrition."

The Washington Psychiatric Society held its annual meeting and election of officers, March 25. At this meeting, as has been customary in the past, the President of the American Psychiatric Association, Dr. William Malamud, Sr., was present to give an address on "The Concept of Dynamics in Psychiatry." Officers elected were:

Dr. Hewitt I. Varney, *President-elect*; Dr. Leon Yochelson, *Secretary*; Dr. Morris Kleinerman, *Treasurer*; Drs. Paul Chodoff and Henry A. Segal, *members of the Council*.

•

Dr. Marvin L. Adland, on the staff of Chestnut Lodge, Rockville, Maryland, will be President for 1960–61.

All officers of **Group Hospitalization, Inc.,** were reëlected for another year at the annual meeting of the Board of Trustees. They are: The Honorable Joseph H. Himes, Chairman of the Board; F. P. Rawlings, Jr., President; A. G. Neal, First Vice President; Charles D. Drayton, Second Vice President; James H. Lemon, Secretary; and Bruce Baird, Treasurer.

One new trustee, Justin D. Bowersock, Vice President and Director of Union Trust Company, was appointed by representatives of the Plan's participating hospitals. Two trustees, Mr. Rawlings, appointed by the District of Columbia Commissioners, and Frank R. Jelleff, appointed by the Medical Society of the District of Columbia, were named to succeed themselves as trustees.

Basil O'Connor, President of **The National Foundation,** announces the creation of a **new institute devoted to the advancement of knowledge relevant to the health and well-being of man,** primarily through research and fundamental biology, and in the cause, prevention and cure of disease, and in the factors and circumstances conducive to the fulfillment of man's biological potential. To head up the Institute will be Dr. Jonas E. Salk, the developer of the first effective vaccine against poliomyelitis. The National Foundation has agreed to provide operational funds and to contribute at least $1 million annually toward an endowment fund until the Foundation's contribution to this fund reaches $10 million. The Institute may receive additional support from other sources.

It is thought that the Institute, although self-governing, would thrive best in the vicinity of, and with a strong affiliation with, a major university. There is a possibility that the University of California might establish a major campus in the La Jolla vicinity of San Diego. A site in this area is under consideration.

"Jewish Contributions to American Medicine" is the title of an exhibit currently on display at B'nai B'rith Headquarters, 1640 Rhode Island Avenue, N.W. The exhibit deals with contributions of 75 famous physicians and research workers. It is open for inspection weekday afternoons, with the exception of Wednesday, and all day Sunday. The exhibit will continue until November 15.

The exhibit, the first of its kind ever assembled, spans 300 years of medical history from the time of Dr. John Lumbrozo, first Jewish physician in the colonies, to present Nobel medalists. Adjacent to the exhibit rooms is a well stocked library of books on Jewish history and all phases of Jewish culture.

The B'nai B'rith exhibit was formally opened early in the year by Dr. Leroy E. Burney, Surgeon General of the Public Health Service. Most of the 22 exhibit consultants are members of the Medical Society of the District of Columbia.

IMPORTANT NOTICE

For physicians who desire to participate in the
SCIENTIFIC EXHIBIT
at the
CLINICAL MEETING OF THE AMERICAN
MEDICAL ASSOCIATION
to be held in
Washington, D.C., November 28–December 2, 1960

Application Forms are now available at the
Executive Offices
The Medical Society of the District of Columbia

Forms are to be filled out and returned to:
Local Committee on Scientific Exhibit, AMA
J. Ross Veal, M.D., *Chairman*
1718 M Street, N.W.
Washington 6, D.C.

CLOSING DATE FOR RETURN OF APPLICATIONS: JULY 15

Dr. David E. Price, Assistant Surgeon General of the Public Health Service, will be one of four American scientists designated to represent the United States at a joint meeting on poliomyelitis to be held in the Soviet Union this month. The place of meeting will be the Poliomyelitis Institute of the Academy of Medical Sciences in Moscow, May 12–16. A similar joint meeting will be held in the United States next year.

Dr. Price will represent the Surgeon General and will head the U. S. delegation. The other members

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Information and Education, through which requests for speakers for lay groups, including radio programs, can be filled.

Date	*Speaker*	*Subject or Title*	*Organization*
March 15	Dr. Philip A. Caulfield	Gallbladder Disease	Inga's Angle, WRC-TV
March 18	Dr. Robert R. Montgomery	Hypertension	Inga's Angle, WRC-TV
March 21	Dr. Julius S. Piver	Breast and Uterine Cancer	Laurel (Md.) Senior High School
March 21	Dr. Seymour J. Rosenberg	Family Interaction and the Retarded Child	Alexandria, Arlington, and Fairfax Associations for Retarded Children
March 22	Dr. Marcel J. Foret	Hypnosis	Inga's Angle, WRC-TV
March 25	Dr. Harold M. Hobart	School Health	Inga's Angle, WRC-TV
March 29	Dr. Irvin Hantman	Common Diseases of the Ear	Inga's Angle, WRC-TV
April 1	Dr. Robert E. Moran	Modern Reconstructive Surgery	Inga's Angle, WRC-TV
April 2	Dr. Thelma B. Dunn	Why Educate Women?	Washington Alumnae Chapter of Alpha Omicron Pi
April 5	Dr. Robert H. Parrott	Medical Writing	District Chapter, American Physical Therapy Association
April 11	Dr. Robert J. Coffey	Gastrointestinal Surgery	Postgraduate Refresher Course for Nurses, Doctors Hospital
April 18	Dr. Charles A. Hufnagel	Nursing Care of the Open Cardiac Surgical Patient	
April 25	Dr. Arthur A. Morris	Neurological Diseases and Operations	
April 30	Dr. Herbert P. Ramsey	Medicine the Profession of Healing	Career Conference for Senior High School Students in Montgomery County (Maryland)
May 3	Dr. Caroline Jackson	Women in Medicine	Business and Professional Women's Club

will be Dr. Roderick Murray, of the National Institutes of Health; Dr. Alexander Langmuir, of the Communicable Disease Center (PHS), Atlanta, Ga.; and Dr. Albert Sabin, of Children's Hospital Research Foundation, Cincinnati, Ohio. Dr. Sabin developed the live poliovirus vaccine which is being widely used in the Soviet Union.

Rear Admiral Frank P. Kreuz, Jr., M.C., U.S.N., is the new **Commanding Officer of the Naval Medical Center.** He succeeds Rear Admiral Bruce E. Bradley, M.C., U.S.N., who has retired from Naval service. Admiral Kreuz, formerly Deputy Commanding Officer of the U. S. Naval Hospital, is succeeded by Captain Robert B. Brown, M.C., U.S.N.

The Washington Hospital Center has received a grant of $5,000 from the Washington Heart Association which will enable Dr. Herbert L. Tanenbaum, Director of the Cardio-Pulmonary Laboratory of the Center, to study drug effects on various congenital and acquired heart conditions.

Toxic Episodes in Children, a quarterly publication for the medical profession, was announced in March by Excerpta Medica, which will prepare and publish the quarterly through a grant from Kinney and Company, pharmaceutical manufacturers in Columbus, Indiana. The publication will consist of current abstracts from world-wide medical literature.

The Doctors Symphony Orchestra, which is conducted by Dr. James A. Gannon, Jr., gave a concert at the National Institutes of Health, March 17, for the Montgomery County (Maryland) Heart and Tuberculosis Association in conjunction with the Georgetown University Glee Club, under Paul C. Hume. The soloist for the evening was Mrs. Nancy Alfaro Emes.

Alexandria Hospital was again one of 8 hospitals throughout the country to win a safety award in a contest sponsored by the American Hospital Association and the National Safety Council. The employees of Alexandria Hospital number 525 and they worked more than a million hours last year without losing any time because of accidents. Only 32 of 299 competing hospitals had perfect safety records.

HONOREES AT DOCTORS' DAY RECEPTION

These physicians, members for 30 years or more of the Southern Medical Association, were honored by its Woman's Auxiliary at the Doctors' Day reception, held in the Medical Society's library, March 30: (left to right) DRS. JOSEPH B. BOGAN, JEROME F. CROWLEY, CHARLES STANLEY WHITE, J. BAY JACOBS, HARRY LEE CLAUD, HARRY S. BERNTON, PRESTON A. MCLENDON, AND WILLIAM EARL CLARK. Story on page 303.

PERSONALS

Dr. Daniel L. Finucane, Director of Public Health for the District of Columbia, was one of six graduates of Georgetown University who received Certificates of Merit at the Tenth Annual Awards Luncheon of the Georgetown Club, held at the National Press Club, March 17. Dr. Raymond A. Osbourn, President of the Club, presided.

Dr. Finucane graduated from the School of Medicine in 1927 and has served on the teaching staff of Georgetown since 1930. He is presently Clinical Professor of Medicine. After serving for many years as Superintendent and Medical Director of Glenn Dale Sanatorium, he took over the direction of the D. C. Health Department in 1957.

The Congress of Delegates of the American Academy of General Practice conferred honorary membership on **Dr. Hugh H. Hussey,** Dean of the Georgetown University School of Medicine, at its Annual Meeting in Philadelphia, March 20. Dr. Hussey served the organization as Medical Editor of GP from 1951 until 1959.

Dr. Joseph F. Fazekas has been appointed consultant staff member to the Kennedy Memorial Hospital in Boston. According to *Rehab News*, published by the Rehabilitation Council of the United Community Services of Boston, he will be associated with the neurophysiological research program in the Knights of Columbus Research Center of the Hospital "because of his interest and experience in experimental chemistry, pharmacology, and cerebral defects in children."

Dr. Henry P. Laughlin, an Associate member of the D. C. Medical Society, will represent the American Psychiatric Association on the Council on Medical Television. The Council is a national body established to represent and to bring together leaders in industry and medicine who will work toward improving medical communication via TV. Dr. Laughlin has served the American Psychiatric Association as Chairman of its Committee on Public Information since 1957.

Dr. June C. Shafer, an Associate member of the D. C. Medical Society, has been appointed Chairman of the Committee for Ionic Radiation of the American Academy of Dermatology and Syphilology.

Dr. R. Frank Jones, Medical Director of Freedmen's Hospital, has been appointed by the District Commissioners to the Urban Renewal Council.

Dr. Ludwig G. Lederer, retiring President of the Aerospace Medical Association, gave his Presidential Address at the 31st Annual Meeting of the Association in Miami Beach, Fla., during the opening ceremonies, May 9. At the closing banquet on May 11 he presented the four annual awards for achievemen in aerospace medicine. He has been succeeded in office by Dr. George J. Kidera, of Chicago, Medical Director of United Air Lines.

Dr. Allan M. McKelvie was recently elected First Vice President of the St. Andrew's Society of Washington, a charitable and social organization made up of members of Scotch birth and ancestry.

PHYSICIANS NEEDED FOR ARMED FORCES

The Armed Forces continue to require the services of most physicians liable for military service under the Universal Military Training and Service Act.

Lt. General Lewis B. Hershey, Director of Selective Service, issued this reminder to physicians early in April when it became apparent that the Armed Forces would not call to active duty a small number of physicians in a few specialties who had been deferred for residency training under the Armed Forces Reserve Medical Officer Commissioning and Residency Consideration Program.

All reserve officers deferred for residency in most specialties will be called.

Shortages exist and will continue in certain specialties and in the group of officers who have not specialized, according to information received by the Director of Selective Service from the office of Dr. Frank B. Berry, Assistant Secretary of Defense (Health and Medical).

The Selective Service Director urges physicians not to draw erroneous conclusions concerning the need of the Armed Forces for their services. If a substantial number of physicians, basing their decision on knowledge that a few reserve medical officers in a few specialties are not being called to active duty after residency, conclude they are not needed, existing shortages in the Armed Forces will be aggravated.

The Department of Defense has found it unnecessary to requisition physicians through the Selective Service System since early in 1957. This has been so only because sufficient numbers of physicians sought reserve commissions and thus made themselves available for call to active duty.

There is a continuing need for applications for the residency program, as well as for reserve commissions and active duty at the conclusion of internship.

The temporary surplus in some specialties in the residency program is understandable, General Hershey pointed out. Estimates of needs must be made 4 or 5 years ahead. Other factors are revisions in Armed Forces strength, redistribution of troops, reorganization of the hospital system, specialists choosing a military career, and voluntary extension of duty tours by reserve officers.

MEMBERSHIP

The following applicants for membership will be voted on at the meeting of the Executive Board, June 27, 1960.

For Active Membership

Peter W. Conrad, Georgetown University—1954
Thomas M. Foley, Jr., University of Virginia—1937
John C. Kenealy, State University of New York—1952
Alfred J. Luessenhop, Harvard University—1952
Louis E. Perraut, University of Louisville—1946
Robert E. Stowell, Stanford University—1941
Benedict Vicas, Georgetown University—1945
William P. Waters, Howard University—1952

Francis W. Blackwell, Howard University—1955
Jules I. Cahan, George Washington University—1953
William W. Saunders, Stanford University—1940
Paul D. Sullivan, Jr., Georgetown University—1952

For Associate Membership

John F. Maher, Georgetown University—1953
Mustafa K. Mutlu, University of Istanbul (Turkey)—1946
Willie N. Ricketts, Howard University—1952
William N. Sterling, University of Maryland—1955
C. James Duke, Marquette University—1955
Francis C. Mayle, Georgetown University—1953

For Resident-Intern Membership

Jesse E. Pyeatte, University of Oklahoma—1955
John F. Gustafson, Cornell University—1954
Franz-Joseph M. Weber, University of Graz (Austria)—1944

CHRISTOPHER JOSEPH MURPHY, M.D.

(1892–1960)

Dr. Christopher J. Murphy, Deputy Coroner of the District of Columbia for 33 years, died, March 23, 1960, in Alexandria Hospital. In addition to his work as Deputy District Coroner, he was active in general practice and surgery until a year ago.

Dr. Murphy was a Washingtonian, born August 1, 1892. His parents, William and Margaret E. Murphy, preceded him in death. He graduated from Gonzaga High School and from Georgetown University School of Medicine, the latter in 1915. He enlisted in the Army Medical Corps in 1917, during World War I, with the rank of First Lieutenant and was discharged as a Captain. After the War he practiced medicine in the District and served on the staff of Providence Hospital, where he had interned earlier, for 40 years.

He was a member of the Board of Police and Fire Surgeons before his appointment as Deputy Coroner. Dr. A. Magruder MacDonald, the District Coroner, and Dr. Murphy were classmates in medical school. Dr. Murphy later taught at Georgetown and at the FBI Academy. He lived for many years at 1300 East Capitol Street.

He was a member of the American Medical Association and an Active member of the Medical Society of the District of Columbia since 1921. He was a member of the Elks and Past Grand Knight of Carroll Council No. 377, Knights of Columbus.

Dr. Murphy is survived by his wife, Mrs. Catherine B. Murphy, of the home address, 1201 South Courthouse Road, Arlington, Va. He leaves a daughter, Mrs. Catherine B. Liekweg, 3227 Martha Custis Drive, Alexandria, and three sons, Dr. Christopher J. Murphy, Jr., of Lake Barcroft, Va.; Robert J. Murphy, of Arlington; and William J. Murphy of Suitland, Md. He is also survived by a sister, Mrs. Marie E. Mihm, of Washington, and two brothers, Peter S. and William Murphy, both of Miami, Fla.

JOSEPH F. SILER, M.D., F.A.C.P., F.A.C.S.

(1875–1960)

Colonel Joseph F. Siler, M.C., U.S.A. (retired), internationally known leader in the field of tropical medicine, died, February 7, 1960, at his home at 2220 20th Street, N.W. He was founder, member and President (until 1957) of the Gorgas Memorial Institute of Tropical and Preventive Medicine, and was Secretary and later President of the Walter Reed Memorial Asssociation from 1950 until the time of his death.

Colonel Siler was born in Orion, Alabama, June 8, 1875. He received his degree in medicine from the University of Virginia in 1898. Following a 2-year internship at New York Postgraduate Hospital, he entered the Army Medical Service during the Philippine Insurrection in 1900, as a contract surgeon. While in the Philippines he was commissioned as First Lieutenant in the Regular Army in 1903.

Interested in preventive medicine and public health throughout his long career, Colonel Siler served in 1912 as chairman of a pellagra commission organized by the New York Postgraduate Hospital. During World War I he served in France as Commanding Officer of Base Hospital No. 8, and then organized the Division of Laboratories and Infectious Diseases for the A.E.F. He came to Washington after the War as Chief of the Preventive Medicine Division and Laboratories in the Army Surgeon General's Office. He later served as Chief Health Officer in the Panama Canal Zone.

He served as Commandant of the Army Medical School (now the Walter Reed Army Institute of Research) for 5 years before retiring from the Army Medical Service in 1939. It was during this period that he made his investigations of immunization to typhoid fever.

During World War II he was recalled to active duty for 2 years as a member of a retiring board at Walter Reed Army Medical Center.

He was a Fellow of the American College of Surgeons and of the American College of Physicians, a member of the American Public Health Association, American Medical Association, the Association of Military Surgeons, American Association for the Advancement of Science, American Society of Tropical Medicine, and the Washington Academy of Medicine. He was a member of the National Board of Medical Examiners from 1934 to 1947. In 1954 he was named National Commander of the Military Order of the Caribao.

Among his many honors were the Distinguished Service Medal and the Kober Award, the latter presented by Georgetown University in 1939 for distinguished service in preventive medicine. He was also decorated by the Republic of Panama.

He is survived by his sister, Mrs. Thomas R. Frazer, of Rome, Ga. His wife, Mrs. Kate Douglas McNeill Siler, died in 1957.

Pulmonary Embolism—Tatlier

(*Continued from page 271*)

He must take into consideration physical and laboratory findings, such as chest X-ray films and electrocardiograms. He should keep in mind predisposing factors, such as surgery, trauma, heart disease and thrombophlebitis. After surgery the stasis in the circulation of the lower extremities may be in association with an unknown hypercoagulability mechanism and can cause thrombosis and embolism. This usually occurs at the time of ambulation or in the second postoperative week.

Summary

During the last 3 years Prince George's Hospital records show 51 cases of pulmonary embolism, in 34 of which there was recovery and in 17 death. From our records we can say that pulmonary embolism is an episode occurring in middle- and older-age people. After surgery embolisms occurred between the eighth and the sixteenth postoperative days. All of these patients had had major abdominal surgery. There were no cases of embolism following minor surgery.

Relationships of venous thrombosis to pulmonary embolism were: 21.6 per cent of the patients had phlebitis in the lower extremities, 13.7 per cent showed probable pelvic thrombosis, and 31.4 per cent had embolism of cardiac origin.

Chest X-ray findings were very important, 77 per cent of the patients having X-ray findings suggestive of pulmonary infarction, the majority in the right lung.

Sometimes electrocardiographic findings such as clockwise rotation and right axis deviation have been valuable for diagnosis.

Eighteen patients had anticoagulant therapy with improvement in 88.9 per cent. The fatality was 11.1 per cent. Thirty-three patients had no anticoagulant therapy. The result was improvement in 54.5 per cent and death in 45.5 per cent.

President's Page

(*Continued from page 288*)

Wood. High school students will be given an opportunity to meet with physicians and observe hospital and office procedures, with the avowed purpose of gaining promising recruits.

A novel experiment in medical education has been proposed by Dr. Fred M. Richardson of Philadelphia, coördinator of that city's hospital education program. Designed to shorten the time spent in medical education, the program proposes to combine pre-med, medicine and internship into an integrated 8-year course. This certainly seems to be a step in the right direction.

Victor R. Alfaro.

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It is fully expected that Aldactone will change present medical concepts of the therapeutic limitations of managing edema. Many patients living in a greater or lesser state of edematous invalidism can now be edema-free. To others, gravely ill, Aldactone will be life-saving.

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DOSAGE: For most adult patients the optimal dosage of Aldactone, brand of spironolactone, is 100 mg. four times daily. Aldactone should be administered for at least four or five days before appraising the initial response, since the onset of therapeutic effect is gradual when it is used alone. Aldactone manifests accelerated activity with greater response as early as the first and second days when used in combination with a mercurial or thiazide diuretic.

SUPPLIED: Aldactone is supplied as compression-coated yellow tablets of 100 mg.

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Book Reviews

Transactions of Sixth Annual Meeting of the Inter-Society Cytology Council, held at the Statler Hotel, New York City, November 13, 14 and 15, 1958. Pp. 275. New York: American Cancer Society, 1960.

The Inter-Society Cytology Council resulted from a meeting in 1951 of the "Cytology Institute," whose purpose was to develop an organization for the further development and advancement of cytologic methods. The Council held its first meeting in 1953. Active membership is open to clinicians, pathologists and cytologists engaged or interested in the utilization of cytologic methods.

These Transactions are a very comprehensive coverage of a most comprehensive program. It includes all phases of the problem of cytologic diagnostic methods, beginning with studies of cellular exudative enzymes and other phases of cytochemistry through various morphologic problems encountered in the use of this diagnostic tool. The 32 papers abstracted cover not only cancer of the cervix but of the urinary system, stomach, lungs, nasal cavity, colon and breast. The emphasis, of course, is on the cervix and endometrium. There is much discussion of technical details, including the use of the phase-contrast microscopy. Apparently the newer fluorescent microscopy technic has developed into a practical procedure since this meeting.

The participants include all of the authorities in the various aspects of the question in this country and a number from abroad, especially England. There are a number of illustrations, and considering that they are reproduced by the offset method and on paper that is not too well adapted for half-tone, they are readable and are a great help to the understanding of the discussions.

All in all, this paper-bound volume forms an authoritative and comprehensive coverage of the subject of cytology, and will be of great assistance to those of us concerned with this important activity.

J. E. Ash, M.D.

Lymphocytes and Mast Cells. Margaret A. Kelsall, B.A., M.A., Ph.D., and Edward D. Crabb, B.A., M.A., Ph.D. Price, $8.00. Pp. 399. Baltimore: Williams & Wilkins, 1959.

The reviewer found the subject of this text and the material presented to be interesting, informative and challenging. For the average physician, the amount of accumulated knowledge contained in the 399 pages will be a surprise and valuable to a better understanding of physiological mechanisms in health and disease.

The authors present, with equal consideration, the results of their own studies and the studies of other workers. In such instances where definite conclusions are valid, the authors state the facts. In other instances the conflicting information and opinion are presented, and no conclusion is made. Basically, the text presents the lymphocyte and mast cell from the following aspects: location, sites of production, life span, functions, actions and reactions in a wide variety of situations and influences. In this review one cannot do justice to the multitude of factors presented.

The text contains 1,142 references. It is well indexed as to subject matter.

This book is recommended to all physicians and particularly to the pathologist, the internist, and the surgeon. All medical libraries will find this text a valuable addition. The average physician, the reviewer included, will find that a medical dictionary is essential, as the terms are properly used, and knowing the specific meaning is necessary for understanding. This factor increases the charm of the book.

K. L. McCoy, M.D.

A Synopsis of Skin Diseases. Bethel Solomons, Jun. M.A., M.D., F.R.C.P.I. Price, $6.75. Pp. 293. Bristol, England: Wright, 1959. Baltimore: Williams & Wilkins, exclusive U. S. agents.

This English author has very capably taken the outstanding texts, reference books, and journals in the field of dermatology and has distilled them down to the ultimate in condensation. In keeping with a synopsis, the book is pocket-sized and small in print but clear in type.

It is intended, according to the preface, "for the busy practitioner, for those who have to revise (review?) the subject rapidly, and also for the student about to take his final examination." Unfortunately, however, the intention falls short of achievement.

The presentation is much too concise to be of any value to the general physician. Furthermore, every dermatosis to be found in a large dermatologic textbook, rare as well as common, is included. The medical student would do better to learn more about the common cutaneous diseases and omit altogether the rare and unusual ones.

This book can conceivably be of value to the physician who has completed his specialty training in dermatology, and, a lapse of time having occurred before the next Board examination, desires a quick review of the subject to refresh his memory. For the English medical student, who traditionally takes a comprehensive final examination in every subject, I suppose this book would be an ideal "crammer."

Marc Weiner, M.D.

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AN EVALUATION OF THE AGENTS AND METHODS IN CHOLECYSTOGRAPHY AND CHOLANGIOGRAPHY*

CHARLES E. BICKHAM, JR., M.D.
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IN 1924 a new era in gallbladder diagnosis began when Graham and Cole[1] opacified the gallbladder after an intravenous injection of tetrabromophenolphthalein. Prior to this achievement the radiologic diagnosis of gallbladder disease consisted in the use of plain films. These films might occasionally demonstrate opaque calculi, a calcified gallbladder, calcium milk of bile, or the gallbladder itself if it were enlarged or contained gas. The biliary ducts might also be visualized if they contained air from inflammatory disease or if a fistulous connection existed with the gastrointestinal tract.

Oral cholecystography entails the visualization of the gallbladder after the ingestion of a medium. The procedure represents a test of function because the medium must be absorbed from the gastrointestinal tract and carried by way of the blood stream to the liver. The media must be excreted in the bile and concentrated in the gallbladder, where large quantities of water must be absorbed before a good shadow for radiographic diagnosis is obtained. Numerous investigators[2, 3] have stated that the ideal cholecystographic agent should meet the following criteria:

1. Absence of, or a very low toxicity
2. Minimal side-effects
3. Rapid absorption into the blood stream
4. Excretion in the bile with selective localization in the gallbladder
5. Good opacification of the gallbladder without obscuring significant detail within the viscus
6. Prompt elimination.

The first intravenous medium resulted in rather severe reactions, and its use was discontinued. The oral use of tetrabromophenolphthalein sodium was described in 1925 by Menees and Robinson.[4] Shortly afterward iodine was substituted for bromine[5, 6] and the new medium, tetraiodophenolphthalein, was used either orally or intravenously for almost 2 decades. Toxic reactions in the form of severe nausea, vomiting, diarrhea, and abdominal cramps prevailed in a goodly number of patients, and these reactions were more severe with the intravenous method. The phenolphthalein part of the molecule was responsible for the major toxic reactions. In 1940 Priodax (iodoalphionic acid)[7, 8] was introduced for oral use and fewer toxic symptoms followed because it did not contain phenolphthalein. This medium provides good contrast for radiographic diagnosis and is still used.

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* Read before the Hippocrates-Galen Medical Society in Washington, D.C., October 1, 1959.

The search continued for more acceptable oral agents, until today we have 3 newer and denser media with fewer toxic reactions and side-effects. These new media are Telepaque (iopanoic acid),[2, 9, 10] Teridax (iophenoxic acid),[3] and Orabilex (bunamiodyl).[11, 12]

Telepaque is readily absorbed from the gastrointestinal tract, and about 85 per cent of the medium is also rapidly excreted in the intestinal tract. Toxicity and side-reactions are few, and there is a decrease in the number of patients complaining of diarrhea, nausea and vomiting, and burning on urination. The medium provided a greater density and improved visualization of the gallbladder than any of the prior described media. For the first time there was frequent visualization of the bile ducts, especially after the fatty meal. The usual dose is 3 Gm. The radiograms of 200 consecutive Telepaque cholecystograms were reviewed at the Washington Hospital Center, and in 45 instances it was found necessary to use the double dose technic. In 28 patients there was definite improvement in the degree of contrast and in only 10 cases was there no shadow of the gallbladder. This study indicates that the double dose technic must be used in instances of nonvisualization or when such visualization on the single dose is poor. The disadvantage of Telepaque is that it is excreted in the bowel, leaving opacities which may be superimposed upon the gallbladder shadow.

Teridax (iophenoxic acid) is another medium which was originally introduced with the hope that increased urinary excretion would minimize the intestinal concentration. The density provided is about intermediate between Priodax and Telepaque. It provides a lower systemic toxicity than Priodax, but Whitehouse[13] and Root and Lewis[14] found that, in doses sufficient to provide the optimum visualization provided by Telepaque, Teridax caused a greater number of side-effects, with dysuria among them.

Orabilex (bunamiodyl) was introduced in 1958 and my associates and I[12] have studied and evaluated 350 patients with the use of this medium. It was found to be safe with less toxicity and side-reactions than previously employed contrast media. A single dose of 4.5 Gm. produced consistently good opacification of the gallbladder. Twenty-six patients had nonvisualized gallbladders on the first study, and on the repeat study only 1 showed any faint visualization. It was concluded that, because of this all-or-none opacifying property, the double dose technic might possibly be eliminated. No confusing intestinal residue of the contrast medium was found in this series, and this is because 70 per cent of the medium is excreted by the kidneys.

A new sign, "the rim sign," has recently been described by Salzman and Warden[15] in the demonstration of radiolucent biliary calculi in nonvisualized or faintly visualized gallbladders. The sign consists of a generalized faint increase in the overall density of the stones and a sharp linear density around the periphery of the calculus. It is thought to be due to the deposition of the iodinated medium over the surface of the stone. A 3- or 4-day regimen of iodized medium on a relatively fat-free diet is employed.

This same technic has also been employed by us to demonstrate an enlarged common bile duct with a stone in a jaundiced patient after the conventional cholecystographic technic had failed. This procedure may also be used in patients after cholecystectomy.

Severe kidney damage and well-developed cardiac insufficiency are contraindications to the use of these cholecystographic media. Jaundice per se is not a contraindication, but because of deficient liver function it is usually fruitless to try and perform the study.

The radiographic views which are essential in obtaining good cholecystograms are the posteroanterior and the left anterior oblique, both in the prone and upright positions. The lateral decubitus view may also be used, especially where gas cannot be removed from the gallbladder area or if the patient is too ill to stand for an upright film. I also prefer fluoroscopy with compression and spot films. A fatty meal is usually omitted when stones are present but should be employed otherwise. It is usually necessary to wait a half to 1 hour before making the post fatty films. Recently cholecystokinin,[16, 17] a hormone of the duodenal mucosa causing contraction of the gallbladder, has been used intravenously to cause immediate contractions, thus reducing the waiting time 10 to 20 minutes. It has been reported that the bile ducts are consistently filled.

In the light of improvements in media and technic, Good[18] (Mayo Clinic) thinks that these modern innovations have changed very little the reliability of cholecystographic diagnosis. He states that with the denser medium smaller stones and lesions may be obscured. Also he thinks that the denser medium camouflages the true function of the gallbladder, since there will be fewer diagnoses of nonfunctioning or poor functioning gallbladders by the radiologist. Baker and Hodgson,[19] however, have reviewed 2 series of cholecystographic examinations performed at the Mayo Clinic in 1950 and 1955 and compared these with Kirklin's 1933 study.[20] They report an error of diagnosis of 2.7 per cent in 1950 and 2.4 per cent error in 1955, as compared to Kirklin's figure of 5.0 per cent in 1933. They conclude that the diagnostic accuracy of cholecystography today is within the range of 95 to 98 per cent. The diagnosis of a normally functioning gallbladder showed an error of 6.2 per cent in 1950 and 5.2 per cent in 1955. Kirklin and others had held that this error was from 10 to 20 per cent. Baker and Hodgson had also reported that in 3 per cent of the cases nonfunctioning gallbladders were held to be normal. Our recent experiences with Orabilex indicate that the medium today is certainly less toxic, and this provides a good patient acceptance.

Cholangiography is the term applied to the visualization of the biliary ducts by fluoroscopy or on films. This may be accomplished by (1) percutaneous transhepatic cholangiography, (2) operative, (3) postoperative through a T-tube, (4) intravenous cholografin, and (5) oral.

The percutaneous transhepatic method has been used in jaundiced patients in an effort to evaluate the duct system for diagnostic purposes, but it is not without danger, since at least 1 fatality has been reported.[21]

The operative method is used to determine the presence or absence of residual calculi, tumor, stricture or other disease at the distal end of the common bile duct. A direct needle puncture into the ducts or, better yet, the use of a polyethylene catheter with the injection of an opaque medium is the technic commonly employed. The success of the procedure depends upon good diagnostic films, immediate interpretation, and a repeat of the procedure if necessary.

If a T-tube is left in the common bile duct after cholecystectomy, a cholangiogram may be done before withdrawal of the tube. The procedure is simple, but injection of the contrast material must be done in a proper manner. The opaque medium should be warmed to body temperature before injection. All air must be removed from the syringe. The T-tube must be clamped and the patient placed in a Trendelenburg position. Under fluoroscopic control the injection is made and spot films of the biliary tree are taken. If air is in the tube or ducts, warm saline may be injected first. The opaque materials usually used are Lipiodol, Iodochlorol, Hypaque or Diodrast. Urokon and Medopaque-H[22] should not be used since they may provoke colicky abdominal pain or acute pancreatitis. A chemical cholangitis may also result.

Until 1953, aside from the methods which have been mentioned, there was no satisfactory way to demonstrate the biliary ducts after cholecystectomy. Cholografin (Biligrafin)[23] has now been used extensively. It must be pointed out that it is a filling procedure and not a test of function. The indications for its use are: (1) failure of the oral method to visualize the ducts or the gallbladder preoperatively, (2) patients with disturbances who cannot take the oral medium or who cannot absorb it, (3) post-cholecystectomy patients with persistent or recurrent symptoms, (4) acute abdominal disorders in which time is a factor in arriving at a diagnosis, (5) evaluating extrinsic factors upon the duct system, especially tumors in the pancreas or duodenum, and (6) infants and children in whom the oral method has often failed. The radiograms have to be checked carefully by the radiologist to be sure that the duct system is well demonstrated, and often tomographic study has to be employed. Paregoric and morphine may help to keep the duct system filled. Since about 10 per cent of the medium is excreted by the kidneys some investigators[24] have attempted to depress this renal excretion with the use of paraminohippuric acid (PAH) and also intramuscular penicillin combined with N-N′-dibenzylethyl-endiamine (Penditan). It is our belief that cholografin has been a major addition to the list of new media in the diagnosis of biliary disease, but it should not be used to replace conventional cholecystography.

After the appearance of cholografin there was a revival of interest in demonstrating the ducts by the oral method.[25] Since it is believed that the oral method is always the safest this may be tried first on patients who might react to the intravenous medium. A combination of the oral and intravenous media may be used in cases in which there is unsatisfactory visualization by the oral method.

Another new medium which has been used recently is Duografin.[26] Duografin is a radiopaque fluid for intravenous use containing 40 per cent Renografin for urography and 20 per cent cholografin for cholecystography and cholangiography. It provides simultaneous visualization of the biliary and renal excretory ducts with a single 40 c.c. injection. Thirty-five patients were studied carefully and 70 per cent had no reactions, while 30 per cent had mild reactions of a transitory nature, namely, nausea and vomiting, which do not preclude its use. The indications for the use of Duografin are (1) abdominal diagnostic problems in which time is a factor, (2) cases in which the history and physical findings suggest involvement of either or both the biliary and urinary systems, (3) instances in which abdominal calcifications cannot be properly identified, and (4) selected cases in which a complete study of these systems is needed.

CONCLUSION

Denser and less toxic oral cholecystographic agents are now in use providing improved diagnostic accuracy and improved patient acceptance.

The scope of cholangiography has been broadened by the use of the percutaneous transhepatic injection, improved operative methods, and postoperative use of cholografin.

Duografin has now provided simultaneous visualization of the biliary and renal excretory systems.

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(*Continued on page 371*)

EFFECT OF COMMON X-RAY DIAGNOSTIC PROCEDURES ON THE GONADS

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RADIATION as a hazard does not present a radically new problem that has been precipitated by the atom bomb. Physicists and radiologists trained in physics and radiobiology have known the possible danger and have used precautions for many years during the relatively short period since Roentgen's brilliant discovery in 1895.

It is now generally believed, although there is some evidence to the contrary, that any radiation exposure beyond that from natural background is undesirable. At the same time it is clearly understood that radiation in many of its forms is of enormous value to society and that hence its use cannot be abolished. We have, therefore, the dilemma of possessing an agent which may involve some risk and yet be of such great value that it cannot be abandoned.

Since man first discovered fire he has developed and mastered each new and progressively more potent source of energy. Likewise, he has learned to protect himself from the hazards generated by them. It is equally certain that he will do the same with the power and radiation arising within the atom.

Radiologic health has been voted the most important, newly emerging public health problem, and this is the principal cause for the rash of scientific, semi-scientific and nonsensical articles with which our patients are deluged.

We must use firm and intelligent counseling to avoid the hysteria and near-panic caused by some sensational statements, often quoted as facts, in our newspapers and magazines. We must be able to answer and correct many misapprehensions current today. The object of roentgenography is to provide information not otherwise obtainable by the clinician.

Because both mother and fetus are included in antepartum roentgenography it is doubly important that all available measures be taken to reduce exposure. Obstetric consultants and their patients must be assured that every effort is being made to conserve the somatic and genetic health of both mother and child.

Warren[1] has calculated that a luminous dial on his wrist watch can give the skin of the wrist, at that point, $^{1}/_{10}$ of 1 r in 16 hours. This amount is nearly negligible, because the dose and the area are small. We must be ever mindful of terms such as 3 square inches on the wrist, as opposed to total body exposure, or as opposed to local gonadal exposure. Again, the latter must be differentiated, since the ovary, located some 10 cm. below the skin, could receive about 15 per cent of the surface skin dose, while the testes receive a relatively greater percentage dose from the same surface skin dose. These differences in absorbed depth dose must be carefully differentiated from the dose received by the skin closest to the X-ray tube.

The great bulk of the 38 million X-ray examinations done yearly in the United States are on sick people with a shortened life expectancy. Statistics show that in the past 50 years, simultaneous with the expansion of diagnostic radiology, life expectancy has increased from 49.2 to 68.07 years. The death rate from tuberculosis dropped from 194 to 9.1 per 100,000; infant mortality fell off from 99 to 26.4 per 1,000 live births, and fetal deaths dropped from 23.9 to 17.1 per 1,000 live births. Stone[2] of the University of California, who assembled these figures, points out that, although radiology cannot lay claim to being the major reason for these great medical achievements, it played a conspicuous part. His inference is that, if radiation of this order contributes to the shortening of the life span and produces genetic damage, the changes are not yet evident.

In the assessment of possible deleterious effects arising from medical and dental use of X-rays it must be clearly understood that:

1. Only small amounts of radiation are used in clinical examination.
2. Exposures are limited to local[1] or segmental areas of the body, as opposed to total body irradiation.
3. Radiation effects must be further qualified between somatic cell changes and gonadal cell changes.

Somatic cell changes pertain only to the person so struck by the ray. But the gonadal effect is on the race, rather than the individual. Of the somatic effects, 2 have been widely publicized in the past 5 years, only to be disproven in the last year by improved and adjusted biostatistics. These somatic effects were said to be (1) shortened life span for radiologists and (2) leukemia in both radiologists and those given repeated radiation for such conditions as rheumatoid spondylitis, especially in the age below 30.

The alleged reduction in life span of radiologists has now been unqualifiedly contradicted. (I am sure that the cautious and dollar-conscious life insurance companies would not have given such a generous group life policy as was recently issued to members of the American College of Radiology if they suspected even a slight reduction in our ability to continue the annual premium.) In assessing the leukemogenic effect of radiation both sides have a difficult argument to prove. In 1958, Kaplan[3] reported 33 years' experience with small dose roentgen therapy on 640 women for infertility. Neither the patients nor their offspring for 2 generations have shown leukemia or other change ascribable to X-rays. Arneson's series[4] of 350 women, treated with heavy radiation for uterine malignancy, have been followed for from 5 to 20 years, and no lymphoma-type of change was seen.

Our problem is to first understand and second to reduce and minimize the genetic effects that can arise from diagnostic radiologic examinations.

It might be best to start on what the Bureau of Standards and the National Academy of Science call the maximum permissible dose of radiation in the first 30 years of life (figure 1):

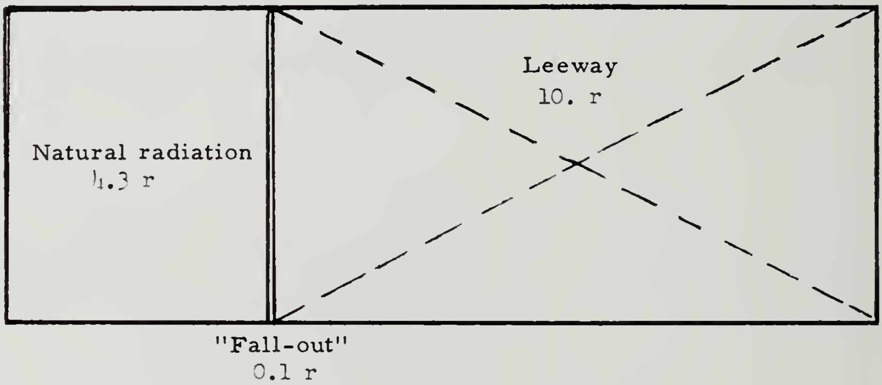

FIG. 1. Total permissible gonadal radiation (14.3 r in first 30 years of life).

NOTE: Areas in Colorado receive 8.6 r per 30 years. Areas in India receive 30.0 r per 30 years.—National Research Council.[5]

(a) We have the natural radiation that all have been exposed to since man evolved. This can be considered constant, and in this area amounts to about 4.3 r per 30-year generation. (b) We have the added amount due to atomic testing and subsequent fall-out. This amount will vary, depending on diplomacy, war and threats, and can be reduced, but now amounts to about 0.1 r over this period. (c) We have radiation due to medical and dental diagnostic procedures, which is the topic with which we are concerned. This leaves us with a plus balance of about 10 r for future use, before reaching the arbitrary limit of 14.3 for the first 30 years of life. This figure increases rapidly above the age of 30. If we use the commonly accepted limit of 14.3 roentgen units, we have, then, a total of about 10 r in our "kitty" to expend on necessary diagnostic procedures. For the present let us omit therapeutic radiation, since we can readily see that the usual doses given for abdominal malignancies and contiguous areas will certainly destroy the gonadal cells, and the danger of genetic damage or mutation will not be present.

Let us first put this so-called allowable limit in its proper perspective. This amount represents the limit to be absorbed by the gonads—not the skin dose in a skull examination, chest study, or that of an extremity. Further, we must know the size of the field radiated, kilovoltage target distance, and filtration of the beam, to determine the depth to which the primary ray penetrates.

Consider this: A small skin carcinoma of 0.5 cm. in diameter can safely be given 1,800 to 2,500 r with the surrounding zone well protected, but 150 r of the same ray, when given as total body radiation, might well be fatal. These facts are not new. Radiologists have had a far greater respect for these rays than is apparent from the press. As far back as 1902 Francis Williams, in the first full text devoted to radiology, stated that they are called X-rays because their origin and effects were not understood, and that caution was in order until more was learned. He died not many years ago, at the age of 85, without having suffered the skin changes so common to the early workers in the field.

It has been estimated that there are 200,000 users of X-ray equipment in the United States, including physicians, dentists, chiropractors, osteopaths and veterinarians, but only 4,500 qualified radiologists.

Surveys in New York City, which can probably be considered as representative of the whole country, have indicated an amazing if not criminal lack of knowledge on the part of many users of this potent ray. The harmless-looking fluoroscope is undoubtedly the greatest hazard. Surveys of fluoroscopes have shown dosages up to 450 r per minute in shoe stores, while many physician's units delivered 134 r per minute to the skin nearest the tube. The well regulated, filtered and calibrated unit should never exceed 10 r per minute.

We now know that the fluoroscope should be used sparingly, and certainly not for so-called survey work or scanning the chest or abdomen. A permanent record or film can be obtained with a comparatively infinitesimal amount of radiation. A routine chest film gives less than 1 r to the skin of the thorax, compared with 10 to 60 times this dose to the skin of the chest, when briefly fluoroscoped. Contrast this with the $\frac{1}{4}$ of $\frac{1}{1000}$ r reaching the female gonads with a conventional 14 by 17 film from a well calibrated and filtered machine. With these doses reaching the gonads, it has been calculated that a female patient could have 6 chest films every day of her life to the age of 30 and still receive less than half the permissible 10 r.

It is possible to take X-ray films of the chest with no demonstrable gonadal dose by lead protection of all tissues below the diaphragm. It is my intention to accomplish this end in our new department.

Listed in table 1 are representative areas frequently X-rayed and the amounts of radiation absorbed in the female gonads for each examination. If 1 woman had every examination listed here, from skull through spine, chest, stomach, colon, renal tract and genital tract, she would receive a total gonadal dose estimated at 5.9 r. Compare this figure with the very conservative and low permissible limit, and we find that we still have more than 4 r to spare for future use.

Table 2 shows both the maternal and fetal dose received in routine pelvimetry done at the University of Michigan.[8] The lateral pelvis view is done on a coned-down, 10 by 12 film, and in this position the gonads are at least 10 cm. outside the radiation field. The difference in gonadal dose between this technic and the amount obtained by Miller and Swindell[6] is probably due to filtration, film and centering.

Diagnostic detail providing critical information applicable to the great majority of clinical obstetric problems is found on this 3-film combination worked out at Ann Arbor. This consists of the routine 14 by 17 abdomen, in frontal and lateral projection, and a 10 by 12 lateral view of the pelvis, all closely collimated and filtered.

TABLE 1*

Female Gonadal Doses

(Common Diagnostic Studies)

	Milliroentgens
Skull (4 views)	0.6
Chest	
(PA only)	0.25
(Lat. only)	0.65
G. B. (complete)	20.
Upper G. I. (4 to 6 views)	103.
Colon (4 to 6 views)	1,200.
Pyelogram (5 films)	1,300.
Salpingogram (5 films)	1,000.
Pelvimetry	
(AP)	320.
(Lat.)	1,320.
Total	5,164

* Modified from Miller and Swindell,[6] Stanford and Vance,[7] et al.

You will notice that the Thoms inlet view is omitted at many centers, due to the high fetal gonadal dose, especially in the usual cephalic presentation. It is with reluctance that this very informative view is being abandoned, but only some special reason should be present to request this study. Outlet studies have never been routine or popular and can be happily omitted.

Whitehouse lists the usual and common indications for radiographic study, including breech at term, failure to engage, previous injury to the maternal pelvis, and previous difficult labor; also to determine fetal maturity, for repeat section, for possible erythroblastosis, diabetes, and toxemias; also excessive uterine enlargement, and suspected fetal anomaly or death.

The problem now reduces itself to what practical steps can be taken to reduce the risk in clinically indicated diagnostic studies.

The major film companies have recently developed an amazingly faster film which permits reduced exposure. Intensifying screens have been used for many years, but these also have been improved recently. By adding extra aluminum and wedge filters to the primary beam further reduction of radiation is obtained. Gonadal shields, when applicable, are accepted and used. Careful collimation of the beam by appropriate cones and diaphragm are required and employed. When possible, diagnostic procedures during pregnancy should be delayed until the third trimester or post partum until more information and the possible risk is demonstrated. Using these procedures, we can obtain a reduction of about 70 per cent of the radiation reaching the maternal and fetal gonads.

TABLE 2*

Maternal and Fetal Doses Received in Routine Pelvimetry

Projection	Maternal Left Ovary			Maternal Right Ovary			Fetal Gonads	
	% Depth Dose	Skin Dose M.R.	Dose M.R.	% Depth Dose	Skin Dose M.R.	Dose M.R.	% Depth Dose	Dose M.R.
AP Abdomen	10	800	80	10	800	80	10	80
Lat. Abdomen	30	1,500	450	.8	1,500	12	5	75
Total dose			530			92		
Lat. Pelvis	(With proper centering and filtration, gonads are at least 10 cm. outside radiation field and should receive no exposure on this film.)							

* From Whitehouse, Simons and Evans.[8]

We are at present using all of these refinements in technic, and we will continue to seek and use further improvements as they are discovered. You have the right to expect, and we in radiology have the obligation to furnish, the safest, most effective and helpful service possible.

It would seem to be irrational and potentially dangerous to hesitate to refer patients for needed

(*Continued on page 372*)

TREATMENT OF ACUTE ALCOHOLISM WITH COMBINED MEPROBAMATE-PROMAZINE*

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THE DISTRESS of the alcoholic after an acute drinking episode frequently presents a medical emergency to his physician and is always a disturbing problem to his family. The difficulties of the "drying-out" period, however, are now more readily resolved with the aid of the ataraxics than before, when only the cortical depressants were available. Postalcoholic discomforts now are lessened and the recovery period is shorter. In many cases the alcoholic can be carried through the withdrawal phase under outpatient treatment[1–4] in the physician's office or clinic as necessary, and hospitalization may not be required.

Numerous investigators have reported favorably on the ability of meprobamate[5–9] and promazine[1–4, 10, 11] to alter postalcoholic symptoms. Since the site of action of the phenothiazine derivatives is primarily in the hypothalamus[12] and that of meprobamate in the thalamus and basal ganglia,[7, 9] it was assumed that a combination of these compounds would be more effective than either used separately. In this study 1 group of alcoholic patients were treated with a combination of meprobamate and promazine in the controlled environment of a general hospital, and the other group were managed as outpatients.

Procedure

The series comprised 107 private patients who had voluntarily sought treatment for alcohol withdrawal. Sixty-nine per cent were men, 31 per cent were women. The men's ages ranged from 26 to 74, the women's from 25 to 63, and the overall average age was 46 years.

Forty-two per cent, or 45 patients (58 per cent of the women, 35 per cent of the men) were admitted to the psychiatric unit of the Washington Hospital Center for several days, where the psychiatric nursing staff provided a particularly favorable environment for withdrawal. Some of these patients had been drinking longer and were more severely debilitated than those in the outpatient group. Others were accepted as inpatients because home supervision was inadequate or they wished, and could afford, hospital care.

Fifty-eight per cent of the series, or 62 patients (42 per cent of the women, 65 per cent of the men) were treated in the outpatient clinic. All of these were ambulatory, and most were accompanied by relatives or friends who were able to provide simple nursing care throughout the withdrawal period.

Almost all in both groups had been drinking in the previous 24 hours. Only 1, an outpatient, was entirely sober at the time of his first visit.

Physical complications were present in 47 per cent of the total series. Fifteen (14 per cent) of the patients (14 per cent of the men, 15 per cent of the women) had evidences of liver damage. Nine were suffering from alcoholic gastritis. Some of these cases probably represented mild pancreatitis. Two had arteriosclerosis, 2 had osteoarthritis, and 2 had arteriosclerotic heart disease. One each had pneumonia, asthmatic bronchitis, diabetes mellitus, pylorospasm, and barbiturate intoxication. One had experienced a convulsion before admission.

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* From the Department of Psychiatry, Washington Hospital Center, Washington 10, D.C.

Somatic symptoms present at the initial examination included anorexia, 88 patients; nausea, 54; tremors, 51; vomiting, 31; severe dehydration, 14; diarrhea, 5; 1 each had fever, hematemesis, tarry stools, cough, palpitation, numbness of the upper extremities; and in 1, jaundice, edema and ascites were evident. The blood pressure was abnormally elevated in 7 patients at the time of the initial examination.

Psychic symptoms associated with or present in addition to those of severe inebriation included delirium tremens, 4; visual and auditory hallucinosis, 4; insomnia, 24; memory impairment, 2; and 1 patient had manic-depressive symptoms suggestive of schizophrenia. One patient was given to uncontrollable outbursts of crying.

Medication was begun with capsules* containing 200 mg. meprobamate and 25 mg. promazine. Most patients received at least 6, and the severely tremulous and grossly overweight received 8 capsules in divided doses throughout the first 24 hours. Usually the daily dose was reduced on the second or third day to 3 to 6 capsules (table 1). The treatment plan was similar for both groups except that, if necessary, pentobarbital sodium or chloral hydrate was administered to the inpatients to quiet them at night. Additional relaxation was provided, whenever indicated, by intramuscular injection of 50 to 100 mg. promazine. For initial control of the severely agitated, delirious, hallucinating patient, parenteral administration of promethazine was considered the treatment of choice. Butabarbital sodium, 100 to 200 mg. daily in divided oral doses, was administered to the severely tremulous inpatients and those with a history of convulsive episodes or delirium tremens as an additional prophylactic measure.

TABLE 1

Initial Medication for 107 Alcoholics Treated as Hospitalized or Outpatients

	Meprobamate-Promazine Initial Dose, Capsules per Day	No. Patients
	8	46
	6	17
	4	22
	3	19
	2	3
Total	23	107

For the nonhospitalized group, a 24-hour supply of the meprobamate-promazine combination was given to the person responsible for the patient, with instructions to bring him to the clinic the following day. The former was told to stop the medication if the patient continued to drink.

Vitamins, adrenocortical steroids and other supportive therapy were used for all as indicated. One of the inpatients who was vomiting severely received a single infusion of glucose and saline, after which he tolerated medication and fluids by mouth. All the others in the series were treated with oral medications without difficulty.

The hospitalized patients received meprobamate-promazine medication for periods of 1 day to 28 days. Seventy-one per cent of this group were discharged in 3 to 7 days. The overall average stay was 6½ days.

Outpatient withdrawal treatment ranged from 2 to 28 days. For 81 per cent of this group withdrawal treatment ranged from 2 to 10 days. The overall average duration was 6 days.

The hospitalized group were expected to continue follow-up treatment as outpatients after discharge; those who had been treated in the clinic were urged to remain under outpatient therapy. Books, pamphlets and other educational material concerning the causes and management of alcoholism were provided to help develop a better understanding of the causes and methods of treatment of alcoholism. Efforts were made to help each individual acquire a better understanding of his particular problem and to suggest a plan that would assist his recovery. The resources of Alcoholics Anonymous were employed whenever possible and were often valuable in the rehabilitation program.

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* Prozine Capsules (200 mg. meprobamate with 25 mg. promazine), available from Wyeth Laboratories, Philadelphia 1, Pa.

RESULTS

No deaths occurred in this series. Ninety-three per cent of the hospitalized group were relieved of their withdrawal symptoms in 72 hours with meprobamate-promazine medication. In 7 per cent (3 patients) delirium tremens or severe hallucinosis developed which required supplementary medication with intramuscular promethazine or promazine and hypnotics.

The nursing staff has commented favorably on the response to this treatment program and on the convenience of administering the 2 agents in 1 dose. They felt that these patients were less disturbed and required fewer hours of nursing care for physical needs than did those who were receiving other forms of therapy, such as paraldehyde, for alcoholic withdrawal.

Of the outpatient group, treatment with meprobamate-promazine was adequate for 89 per cent (55 patients); i.e., withdrawal was complete in 72 hours and they were able to stop drinking. The response was unsatisfactory in 11 per cent (7 patients); 2 required supplementary parenteral treatment to control their symptoms and 5 resumed drinking before withdrawal was complete. Failure in these 5 cases may be attributed to poor original motivation or to inadequate control of the environment.

No patient in the nonhospitalized group presented any medical contraindication to the use of the meprobamate-promazine combination. No delirium tremens or hallucinosis developed in any of the patients who visited the outpatient clinic more than once, and none were subsequently hospitalized.

One interesting finding, unusual in the alcoholic, concerned the voluntary reduction of dosage by the outpatients themselves. In many cases, when they became conscious of relief after having taken a few doses of 2 capsules, they reduced the dose to 1 capsule of their own accord.

No convulsions occurred in either group, even those whose history suggested predisposition to seizures.

In all cases initial hypertension subsided on control of the agitation. Antihypertensive agents were not required. No hypotension developed during the withdrawal treatment.

Side-effects of various types occurred in 20 per cent of the series. Twelve patients (11 per cent) had moderate to pronounced drowsiness during their wakeful periods in the first 24 to 48 hours, which in the alcoholic is of definite advantage. It appears that, when excessive drowsiness occurs, one-half the recommended dose may suffice.

Four per cent complained of blurred vision and 4 per cent of a paradoxical reaction—temporary increase in agitation, necessitating parenteral administration of barbiturates. One per cent had vertigo, euphoria and headache.

SUMMARY

Of 107 patients, almost all of whom had been drinking within the previous 24 hours, 42 per cent were hospitalized and 58 per cent were treated as outpatients. Physical complications, including cirrhosis and gastritis, were present in 47 per cent. Medication was begun with a daily dose of at least 6 to 8 capsules of meprobamate-promazine, which was usually reduced on the second or third day to 3 to 6 capsules. Treatment was continued for an average of 6½ days for the hospitalized and 6 days for outpatients. Withdrawal symptoms were adequately controlled in 72 hours in 93 per cent of the hospitalized patients and in 89 per cent of the outpatients.

Satisfactory results were obtained with lower dosage of each constituent than had been required in previous experience with the use of either compound separately. This combination is a safe and useful addition in both outpatient and inpatient treatment of acute symptoms of alcohol withdrawal.

(Continued on page 372)

BARBITURATE- AND NONBARBITURATE-MANAGED LABORS

A Controlled Study of Promazine in the Predelivery Regimen

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OBSTETRICAL sedation-analgesia with promazine and meperidine by intravenous injection was first produced by Kuntze and Sison in 1957[1] and later[2]; Sprague[3] and several others[4, 5] have achieved similar results. Use of the regimen was begun at this institution in February, 1957 and has been continued to this writing (January, 1959) for the routine management of labor. Our total study comprised about 2,500 cases. The results described here, which were obtained in the first 2 months of the trial, are representative of those of the entire series. Control data were obtained from the records of a comparable group delivered under conventional medication during the same 2 months of the previous year. The condition of the infants on delivery, in comparison with those of the control series, and the striking reduction in the need of Krieselman resuscitation have been described elsewhere.[6]

Plan of Investigation

The series consisted of 2 groups totaling 632 unselected service patients—Group 1 (319 controls) and Group 2 (313 specially treated patients). All were delivered vaginally after normal or complicated labor. Cases in which cesarean section was performed were excluded from both groups. The controls and the specially treated patients were rather closely comparable as to age, race, gravidity, parity and other factors (table 1). Table 2 lists the complications present on admission, during delivery, and in the early postpartum period (first 3 days).

Group 1. Twelve of the controls (4 per cent) were admitted in prodromal labor (sporadic pains without progressive dilatation or effacement) 50 minutes to 19 hours before the onset of regular, forceful contractions. Each of these received 3 grains of secobarbital and 100 mg. of meperidine intramuscularly, with or without an intravenous dose of 250 mg. of pentobarbital sodium. The average duration of prodromal labor was 8 hours, 14 minutes. The average time from the beginning of true labor, as defined by the onset of progressive effacement and dilatation of the cervix to the administration of medication, is shown in table 1. Elective induction and acceleration of labor are recorded in table 3. Included are the cases complicated by placenta previa, preëclampsia, toxemia or premature labor.

Medication during true labor. One dose, consisting of 3 grains of secobarbital, 250 mg. of pentobarbital, and 100 or 200 mg. of meperidine, sufficed for a small percentage, all multigravidas,

TABLE 1

Comparison of Control and Promazine-treated Obstetrical Patients

Race, Age, Gravidity, Parity, Predelivery Medication, Dilatation at Time of First Dose, and Total Dosage during True Labor

	Controls		Promazine-treated	
	No.	*Per cent*	*No.*	*Per cent*
Total patients	319		313	
White		12		12
Negro		88		88
Primigravidas	107	34	104	33
Multigravidas	212	66	209	67
Age:				
12 yrs.	1		0	
14	0		1	
15	4		4	
16	4		7	
17	16		15	
18–29	226		232	
30–39	62		46	
40	3		4	
41	0		1	
42	2		1	
43	1		1	
45	0		1	
	319		313	
Average age	25 yrs.		21 yrs.	
Gravidity	I to XII		I to XIV	
Parity	0 to XI		0 to XIII	
	Avg. Time		*Avg. Time*	
True labor before first dose of medication:				
Primigravidas	5 hrs.		3 hrs., 10 min.	
Multigravidas	3 hrs., 45 min.		2 hrs., 7 min.	
	Per cent		*Per cent*	
Dilatation at first dose:				
2 to 3 cm.	8		25	
4 to 5 cm.	45		36	
6 to 9 cm.	47		39	
One dose medication during true labor	23		77	
Two doses	70		22	
Three doses	7		1	

in the control group. Two doses were required by the great majority of patients, the first dose consisting of 3 grains of secobarbital or pentobarbital, 250 mg., with meperidine, 100 mg.; the second dose, of 100 mg. of meperidine and 250

TABLE 2

Complications Present on Admission, during Delivery and in the Early Postpartum Period

	Controls	Promazine-treated
Antepartum:		
Symptoms suggestive of toxemia	11	50
Positive Wassermann (treatment in progress)	3	7
Rh incompatibility	1	17
Premature labor	10	10
Severe preëclampsia	6	9
Premature separation of placenta	3	2
Marginal separation of placenta and amnionitis	—	2
Upper respiratory infection	—	10
Urinary infection (cystitis, pyelitis, pyelonephritis)	12	11
Endometritis	2	4
Active rheumatic fever	—	1
Rheumatic heart disease	—	1
Hypochromic anemia	—	1
Umbilical hernia	—	1
Hemorrhoids	—	2
Uterine fibroids	1	—
Obesity	1	—
Intrapartum:		
Manual rotation	11	—
Transverse lie	1	—
Assisted breech	2	8
Shoulder dystocia	—	1
Irregular fetal heart rate (tight nuchal cord on delivery)	—	4
Relaxation of fundus	—	1
Manual extraction of placenta	7	2
Subtotal hysterectomy	1	—
Salpingo-oöphorectomy	1	—
Tubal ligation	1	—
Postpartum:		
Hemorrhage	3	—
Infection or breakdown of perineotomy	2	3
Upper respiratory infection	1	—
Thrombophlebitis, saphenous	—	2
Vomiting during labor and delivery:		
One or more episodes after first dose of medication	5%	0.3%

TABLE 3

Elective Induction or Acceleration of Labor

Including Cases Complicated by Placenta Previa, Preëclampsia, Toxemia or Premature Labor

	Amniotomy *Per cent*	Intravenous Oxytocin *Per cent*	Both Surgical and Medical Measures *Per cent*	Total *Per cent*
Induction				
Group 1	6.5	5.4	0.1	12.0
Group 2	3.5	0.5	—	4.0
Acceleration				
Group 1	23.0	4.0	2.0	29.0
Group 2	30.0	2.0	6.0	38.0

mg. of pentobarbital. A number of primigravidas required 3 doses, the first, of 3 grains of secobarbital; the second dose of 3 grains of secobarbital, 100 mg. meperidine and 250 mg. pentobarbital; and the third of 250 mg. of pentobarbital, usually with 100 mg. of meperidine (table 1). The extent of dilatation at the time of the first dose of predelivery medication is shown in table 1.

Total duration of the first and second stage of labor, after the first dose of medication, and the incidence of episiotomy or perineal laceration are shown in table 4. The first and second stages of labor were included as one time span, since it was thought that the ending of the first stage and the beginning of the second stage could not be as accurately and consistently measured as the total interval culminating in the delivery of the infant. The time from administration of the anesthetic to delivery in the primigravidas averaged 10 minutes and in the multigravidas, 7 minutes (table 4). The type of anesthesia used is listed in table 4, as well as the need of whole blood transfusions.

Five per cent of the entire control group vomited at intervals after the first dose of medication, and about 1 per cent of the primigravidas vomited within 10 minutes of delivery (table 2).

Delivery is also summarized in table 4. The great majority of the control group (97 per cent of the primigravidas and 93 per cent of the multigravidas) regained consciousness in the recovery room. The reaction time is shown in table 4. The blood pressure showed an excessive elevation at the time of delivery in 4 per cent (13 patients) and was still elevated on the third postpartum day in 2 per cent.

Amnesia. All patients remembered the events of labor and the environment of the delivery room up to the time pentobarbital sodium was administered.

GROUP 2. *Antepartum complications* (table 2). A short time before treatment of group 2 was begun a Toxemia Clinic was established at this institution and the symptoms suggestive of toxicity were reëvaluated. A diagnosis of probable toxemia was made in the presence of 1 or more of the following: (a) elevation of the blood pressure to levels above normal for the patient, (b) edema, (c) proteinuria, and (d) ophthalmologic changes.[7] Because the signs of toxicity were evaluated in greater detail in the promazine-treated patients, those tabulated as probably toxemic in group 2 numbered about 5 times the comparable control patients.

Thirty-four (17 primigravidas, 17 multigravidas, or 11 per cent of the group) were admitted in prodromal labor. Each received 1 dose of sedative-analgesic medication (50 mg. of promazine* and 50 mg. of meperidine by intramuscular injection) a minimum of 40 minutes to a maximum of 40 hours before the onset of defined true labor. The average duration of prodromal labor was 5 hours, 34 minutes.

Medication after the onset of true labor (table 1). When the patient began to complain excessively of distress the sedative-analgesic combination (50 mg. of promazine, 50 mg. of meperidine, and 0.4 mg. of scopolamine) was administered intravenously in almost all cases after the manner of Kuntze and Sison[1] and of Sprague.[3] The mixture was injected slowly. Three to 4 minutes was consumed before the injection was completed. The scopolamine was freshly prepared by dissolving the tablets in the promazine-meperi-

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* Sparine (promazine hydrochloride) is available from Wyeth Laboratories, Philadelphia 1, Pa.

TABLE 4

Duration of First and Second Stage Labor, Anesthesia, Delivery and Reaction to Anesthetic

	Controls	Promazine-treated
Total First and Second Stage Labor		
Primigravidas		
Minimum	1 hr., 45 min.	50 min.
Maximum	21 hrs., 59 min.	18 hrs., 3 min.
Average	9 hrs., 5 min.	7 hrs., 2 min.
Multigravidas		
Minimum	25 min.	29 min.
Maximum	30 hrs., 50 min.	14 hrs., 37 min.
Average	5 hrs., 9 min.	4 hrs., 2 min.
	Per cent	*Per cent*
Anesthesia		
No anesthetic	4	9
Ethylene and oxygen	93	85
Saddle block	1	2
Caudal	1	2
Pudendal	1	2
	Avg. Time	*Avg. Time*
Anesthetic to Delivery		
Primigravidas	10 min.	11 min.
Multigravidas	7 min.	8 min.
	Per cent	*Per cent*
Delivery	49	58
Spontaneous, draped	(47)	(46)
Spontaneous, undraped	(2)	(12) (Includes 3 primigravidas and 2 multigravidas who delivered in bed)
Low forceps	49	39
Midforceps	2	0.3
Midforceps with forceps rotation		2.7
Episiotomy	70%	66%
Laceration, 1° to 3°	3%	3% (1 cervical, 1 partial rectal sphincter)
	Per cent	*Per cent*
Recovery from Anesthetic		
In delivery room		
Primigravidas	3	32
Multigravidas	7	60
Recovery room stay for remainder:		
Primigravidas		
Minimum	48 min.	7 min.
Maximum	8 hrs., 38 min.	8 hrs., 2 min.
Average	1 hr., 8 min.	1 hr., 42 min.
Multigravidas		
Minimum	20 min.	2 min.
Maximum	5 hrs., 25 min.	3 hrs., 10 min.
Average	1 hr.	1 hr., 40 min.
Whole blood transfusions:		
1,000 c.c.	4 patients } 3%	0 patients } 0.6%
500 c.c.	5 patients	2 patients

dine mixture.[8] Rarely, the dose was given by intramuscular injection. Because the response was not as satisfactory as that to injection by the intravenous route, intramuscular administration was discontinued early in the study. As labor progressed it became necessary in the case of some patients to administer a second dose (intravenously or intramuscularly), consisting of 50 to 100 mg. of meperidine, with or without an additional dose of 25 to 100 mg. of promazine. An occasional patient exhibited some hyperactivity in response to the scopolamine. For these it was necessary to administer a third injection, usually by vein, of 50 mg. of meperidine, with or without 50 to 100 mg. of promazine. Barbiturates were not used at any time.

Dilatation at the time of the first dose is described in table 1. A second dose (additional meperidine, with or without promazine) was administered at 5 cm. or less to 13 primigravidas and 5 multigravidas, and at 9 cm. or less to 21 primigravidas and 34 multigravidas. A third dose (meperidine, with or without promazine) was administered at 9 cm. or less to 3 primigravidas. One dose sufficed for 77 per cent of the group (70 of the primigravidas, 170 of the multigravidas). Only 1 per cent (3 primigravidas) required a third dose. The second and third doses promptly controlled scopolamine-induced restlessness and excitement (table 1).

Total duration of first and second stage of labor, the type of anesthetic used, the length of time between administration of the anesthetic and delivery, the method of delivery, and the incidence of episiotomy or perineal laceration are shown in table 4. The anesthetic was administered to the primigravidas an average of 11 minutes before delivery. The multigravidas received the anesthetic an average of 8 minutes before delivery. Details on delivery are summarized in table 4.

Recovery from anesthetic. Table 4 indicates that the promazine-treated patients came to delivery less depressed than did the controls, since a significantly larger percentage regained consciousness in the delivery room immediately after completion of the repair.

The systolic blood pressure on admission exceeded 140 mm. Hg in 9 patients and during labor and delivery was reduced by 20 mm. Hg in 16 patients. In no case, however, did the blood pressure fall below the range of normal, and all patients had normal pressure levels after delivery.

One primigravida and 1 multigravida required transfusions of 500 c.c. of whole blood in the delivery room after difficult midforceps procedures, an incidence of 0.6 per cent (table 4).

Vomiting (table 2). Eight primigravidas and 1 multigravida had vomited once during labor and 1 primigravida had vomited twice before the first dose of medication. With the exception of the last-mentioned patient all experienced no further retching or vomiting. The 1 exception (0.3 per cent) was a 29-year-old Negress who had been admitted with membranes prematurely ruptured. Her vomiting was refractory to promazine and other anti-emetic drugs during her entire hospital stay.

Amnesia for the experiences of labor before the administration of the anesthetic is summarized in table 5. Analgesia was graded, in conformance with the method of Kuntze and Sison,[1] according to the objective evidence noted by staff physicians and nurses, as well as by the voluntary reports from the patients themselves, as (a) excellent (immediate quiet and relaxation after the injection, some sleeping soundly without being completely aroused by the contractions, others sighing and moaning or turning with their pains and sleeping between), (b) good (somewhat clearer awareness of the contractions but no tension or fear, the patients usually dozing as each pain subsided), and (c) slight or none (these being among the late-treated, who received the medication at 9 cm.) (table 5).

DISCUSSION

Since completion of this part of the study we have begun to use the promazine-meperidine-scopolamine combination by slow intravenous drip. The freshly dissolved sedative-analgesic combination is administered with the standard intravenous apparatus. The earlier the medication is begun and the slower the drip (e.g., administration of the dose over a period of about 10 minutes), the more prolonged the sedative-analgesic action and the more pronounced the relaxation and amnesia.

TABLE 5

Amnesia and Analgesia in Promazine-treated Patients

	Primigravidas *per cent*	Multigravidas *per cent*
		(No record for 28)
Amnesia		
Complete	60	57
Remembered application of mask only	13	18
Intermittent periods of awareness before administration of anesthetic	20	18
Little or none	7	7
Analgesia[1]		
Excellent	90	80
Some appreciation of contractions but no tension or fear	6	15
Little or none	4	5

Early in the study it was found that the promazine-analgesic combination did not alter the established labor pattern at all. Therefore, the patients in group 2 were permitted relief an average of 1 hour, 50 minutes sooner than had been customary for the control group as shown by table 1.

The contraindications to the use of chlorpromazine before spinal anesthesia have not been seen with the use of promazine on our service. No abnormal reduction in blood pressure has occurred in any of our patients; the only side-effect has been an occasional mild, transient tachycardia during intravenous injection.

The natural apprehension of the patient is usually promptly alleviated on injection of the first dose, so that she immediately becomes quiet and sleeps or dozes, uterine contractions meanwhile continuing with increasing frequency and intensity to delivery. The relaxation of the perineum resembling that from saddle block, as reported by Sprague,[3] also has occurred in our patients. Under medication with the promazine-analgesic mixture they are usually co-operative in that they are easily aroused and respond to instruction and thus are more readily managed. Presumably because of a shortened second stage, the patient may deliver, undraped, in the bed without outcry. This happened in 5 cases in group 2 (table 4).

Questioning of the patient on the first postpartum day usually elicits the information that she remembers little or nothing of pain or events in the labor and delivery rooms. Some of the early patients in group 2 have requested to be delivered of another child under the same regimen.

There was a significant difference between the control and the promazine-treated groups in the percentage of elective inductions. Institution of the Toxemia Clinic, about the time the medication of group 2 was begun, was partly responsible, since the pregnancies associated with complications were then more successfully managed and the spontaneous onset of labor was permitted in a greater number of such patients. On the other hand, labor was accelerated for an appreciably greater percentage in group 2 because of the preference of the individual physicians and because the patients who received the promazine-meperidine-scopolamine combination were observed more closely. This undoubtedly influenced the total duration of labor in the promazine-treated group.

The reduction in postpartum bleeding, as evidenced by the lessened need of transfusion (table 4), is significant. We can offer no explanation except to suggest that the medication may exert some salutary influence on the empty uterus to remain in a state of contraction. Further study to determine the reason for the apparent decrease in postpartum hemorrhage seems indicated.

Although we have looked for it carefully in follow-up observations of the patient, we have seen no sign of phlebitis or periarteritis as a result of injection of the medication. We would agree with the emphasis that absolutely accurate technic is essential in depositing the solution within the vein and to avoid injection into the vessel wall or perivascular tissues.

SUMMARY

Labor was managed in 313 patients with a sedative-analgesic combination totaling 50 to (in some cases) 200 mg. promazine, 50 to (in an occasional case) 150 mg. meperidine and 0.4 mg. scopolamine, usually administered intravenously. No barbiturates were used. The regimen has since been in routine use at this institution for almost 2 years. The results were compared with those in 319 patients who received predelivery medication consisting of a total of 3 to 9 grains of secobarbital, 250 to 750 mg. of pentobarbital, and 200 to 400 mg. of meperidine.

Of the promazine-treated group, 1 dose of predelivery medication sufficed for 77 per cent, 2 doses for 22 per cent, and 3 doses for 1 per cent. Of the controls, 1 dose sufficed for only 23 per cent, 2 doses for 70 per cent, and 3 doses for 7 per cent.

Labor appeared definitely shorter and analgesia more satisfactory in the promazine-treated group, and complete or partial amnesia for the more distressing and exhausting aspects of parturition was of longer duration than in the controls.

Since completion of this series the medication has been studied with the use of slow intravenous drip (over a period of about 10 minutes), with more prolonged sedation-analgesia and more pronounced relaxation and amnesia.

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"TOBACCOSIS" OR THE PATHOLOGIC EFFECTS OF TOBACCO ON THE HUMAN BODY

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WHILE a hospital resident in 1949 I made the acquaintance of Dr. Ernest Wynder, who was touring the country under the auspices of Dr. Evarts Graham. The purpose of such a tour was to collect smoking histories on proved cases of carcinoma of the lung. The results of this study have since been published and form a milestone in the study of carcinoma of the lung.[1] For the first time I became aware of the fact that cigarettes may be or are a factor in carcinoma of the lung. I was so impressed that I stopped smoking for two weeks. Subsequent publications on the same relationship had less of an impact. Some reports were published in journals not often read by the practicing clinician. Often the results were half assimilated from newspaper accounts. As a heavy smoker I did not wish the facts to make more than a passing impression. This half acceptance of facts by doctors is the most important part of the problem today. With persistence of subjective symptoms I finally became convinced that all was not well as regards my smoking. A reappraisal of the situation began. For over one year I have assiduously collected data on tobacco and its effect on man. This is presented here in the hope that one such presentation will save other physicians from checking many sources. It is planned to correlate all pertinent published material re tobacco. Since the field is so extensive, the project covers two papers—one on tobacco and the human system, the other on the etiology of lung carcinoma.

History of Tobacco[1–16]

Tobacco is from the plant family Solanaceae, which includes the potato, the tomato, and belladonna. The genus is Nicotiana, and there are several species. Tobacco was "discovered" with the new world in 1492. Some wag has remarked that by such an introduction to the explorers the red man finally obtained revenge on the white man. Tobacco smoking was extremely common among the Indians, and with some (Mayan and Aztec) it had religious significance. Tobacco is really the name given by the Indians to the forked or pronged hollow stick with which they smoked the leaf. The forked end was thrust into the nostrils, while the other end actually held the burning leaf.

Tobacco was introduced to the remainder of the world by the original sailors of Columbus. Jean Nicot, the French ambassador to Portugal, became acquainted with the plant because of its supposed medicinal powers. He brought the plant to France, and later it was given the name Nicotiana. Sir Walter Raleigh was the individual who first introduced it to England. He made smoking a habit of the gentry, since tobacco was so expensive that only the gentry could afford it.

As regards our own country, tobacco is important, since it really was the only reason the Virginia Colony was able to survive. The original tobacco was *N. rustica* and was very tough and bitter. John Rolfe found *N. tabacum* in the Bermudas. When he found it more pleasant he brought it back to Virginia and encouraged its planting. His marriage to Pocahontas assured peace with the Indians and thus made it possible for the settlers' crops to be harvested. Tobacco was the first cash crop of the colony and became such a staple that all transactions were carried on in terms of tobacco. Indeed, in 1620, 19 marriageable women were brought to the colonies at the price of 150 pounds a head, payable in tobacco. The settlers' agent usually sold the tobacco in England and then directly made all the purchases for the settler and his farm or plantation.

It is interesting to note the response of various countries as tobacco was introduced. Invariably the reigning monarchs and the clergy condemned tobacco. King James the First of England made the following regal pronouncement regarding tobacco as "lothsome to the eye, hatefull to the nose, harmefull to the brain, dangerous to the lungs." Pope Urban VIII, in 1642, issued a Papal bull condemning the common practice of taking snuff during mass. The Russians clearly regarded smoking as a grievous sin. The Czar punished repeated offenders by slitting their upper lip, public whipping, and even exile in Siberia. The most wanton punishments were those of Murad the Cruel of Turkey. In 1633 he made smoking punishable by death. It is estimated that he killed as many as 25,000 people for this offense. The political belief of the person influenced Murad's interpretation of the law. It is important to note that, despite all these heavy penalties, smoking became increasingly popular and in each individual country survived the harsh laws. One must also state that tobacco has not always been regarded as so dangerous or hateful. During various times it has been reported to have medicinal value in cancer of the skin, prevention of the plague, cure of syphilis, and war wounds.

The tobacco habit is widespread today and influences our daily life through association with newspapers, radio, movies and television. In a massive survey conducted by Rigdon, in which 21,000 individuals were questioned, it was found that about 73 per cent of men and about 33 per cent of women smoke. In regard to taxes, tobacco is extremely important. England, in the year 1950, received over 600 million pounds in taxes on tobacco. In the United States in 1953, 2 per cent of the family budget was spent for tobacco. The farmer received 1 billion dollars for raising the crop. Processing of the tobacco required the services of 100,000 people and cost 580 million dollars. The same year the Bureau of Internal Revenue collected 1.6 billion dollars of taxes. It has been estimated that 60 million Americans smoke cigarettes. There were 436.3 billion cigarettes smoked in the continental United States in 1958. This is a yearly total of 37,000 cigarettes per person aged 15 or over, or about 10 cigarettes a day.

TOBACCO AND THE RESPIRATORY SYSTEM[14, 17-30]

Tobacco is commonly regarded as injurious to the respiratory system. Abstinence from tobacco is a strictly enforced part of athletic training programs. In this regard I should like to mention pulmonary function tests and the smoking of cigarettes. Attinger[17] first studied 20 normal individuals, and could find no difference in the mechanics of breathing in the smoker versus the nonsmoker. It should be regarded as significant that the members of this group were young. The average age of the nonsmokers was 28 and of the smokers, 31. He next studied a group of patients who had chronic respiratory illnesses, such as bronchitis, asthma, and rheumatic heart disease. There were no marked changes with heart patients. However, smoking in those with chronic respiratory disease "was characterized by an increase in the mechanical resistance and the work of breathing." Eich[18] made similar studies and found that "a significant increase in airway resistance was found in 14 of 15 emphysematous patients." He did not note any significant change in his normal patients, whose average age was that of 38. McKee[23] performed pulmonary function tests on 175 patients, 60 of whom were nonsmokers. Again the patients ranged in age from 20 to 41, and 85 per cent were 28 years of age or less. In the smoker one must say that in the younger individual no change in pulmonary functions can be noted by smoking, while marked changes are noted in the individual with respiratory disease. One is forced to wonder concerning the pulmonary functions at a later date in these younger individuals.

Various clinical studies have been reported on the problems of smoking. Hansel[20] has discussed in general the aggravation of asthma, hay fever, pharyngitis, and wheezing caused by cigarettes. Peters and his associates[25] of the Mayo Clinic state, "No person with asthma should smoke." They state that smoking per se causes cough, bronchitis, and bronchospasm. In their experience the so-called asthma cigarettes (containing stramonium or nitrates) are of no help to the patient, since the smoke itself irritates. The asthmatic with inflamed mucous membranes is very sensitive to irritants such as smoke. These authors also point out that cigarette companies which employ filters or talk about the low irritation of their product are all recognizing that their product is irritating. Petit[26] reports a series of 54 patients with a history of "asthma" or "nasal allergy." These individuals also had complaints of exertional dyspnea, wheezing, postnasal drip, cough, sore throat, bronchitis, and sinusitis. When these individuals stopped smoking all or most of these symptoms disappeared.

Myerson[24] has reported on 143 patients who complained of hoarseness and vocal fatigue. Most of these individuals were cigarette smokers. The author found that the smoke caused various changes progressing from edema to multiple fibromata of the vocal cords. The treatment consisted of stopping smoking and removal of the fibromata. Wallner[29] states that smoking causes a number of pathologic changes. One is chronic nonspecific laryngitis, in which the larynx is hyperemic and there is thickening of the vocal cords and the laryngeal mucosa. Voice changes are also present. All symptoms disappear when the individual stops smoking. Another is polypoid degeneration of the vocal cords. Such polypoid tumors are inflammatory and often disappear upon cessation of smoking. A third is keratosis or leukoplakia. These lesions are chalky white elevations of the mucosa and are associated with severe chronic laryngitis. I believe that these entities precede cancer of the larynx.

Waldbott[28] personally noted asthma-like symptoms which disappeared when he stopped smoking. He has described a "smoker's respiratory syndrome." In 4 years he encountered 31 patients with similar symptoms—cough, expectoration, chronic pharyngitis, dyspnea, tightness in the chest, hoarseness and chest pain. Previous diagnoses were usually asthma or bronchiectasis. No allergy could be shown. All were cured when smoking was stopped.

Ryan[27] examined pathologically a large number of larynxes. He was able to identify a "smoker's larynx," which is characterized by (1) thicker surface epithelium due to excess keratinization and hyperplasia of the vocal cords and the subglottic area, (2) round-cell infiltration, (3) marked edema, and (4) squamous-cell metaplasia of the vocal cords and sometimes of the subglottic area. These changes had a direct relationship to the amount of cigarettes smoked. Other pathologic studies will be cited in my second paper, "Etiology of Carcinoma of the Lung."

Greene et al[19] have studied the smoking problem from a different aspect. As part of a preanesthetic workup of over 4,300 patients, his group found that cigarettes were the most common cause of bronchitis and it was directly related to the amount of cigarette smoking. During induction of anesthesia the vast majority of cases of laryngospasm were in patients with cigarette bronchitis. It was their belief that postoperative atelectasis is directly correlated to preoperative bronchitis, and they labeled this entity "preoperative atelectasis." Patients so labeled were more carefully supervised in the postoperative period.

DOCTORS AND SMOKING[31-38]

Several surveys have been made among physicians to detect whether smoking caused symptoms and their opinion concerning smoking as the cause of carcinoma of the lung. Horn et al[32] made a survey among a thousand doctors who were diplomates of the Board of Thoracic Surgery or the American Board of Pathology or members of the American Institute of Cancer Research. They received an average of 79 per cent replies, which they considered to be high. To the statement, "Heavy smoking of cigarettes may lead to lung cancer," 55 per cent agreed, 32 per cent were uncertain, and the remainder did not answer the question. When the statement was changed to "There is probably a causal relationship between heavy cigarette smoking and lung cancer," 50 per cent agreed, 31 per cent were uncertain, and 5 per cent disagreed. There was no answer from the remainder. When questioned as to the statement that "Heavy smoking may have serious effects on body physiology," 79 per cent agreed and 15 per cent were uncertain, while only 2 per cent disagreed, and 4 per cent did not answer. Both Doll[31] and Wynder[38] have performed surveys of carcinoma of the lung in doctors and have found results in doctors as regards mortality similar to those in the general population.

Pyke[34] performed a survey of over 200 doctors in one area in England. Forty-seven per cent were smokers at the time of the survey, which is a smaller number than the general population, and 25 per cent were ex-smokers. About one-half believed that there was a correlation between smoking and carcinoma of the lung. It is interesting to note that far more nonsmokers or ex-smokers had this belief than individuals who were smoking at the time of the survey. This is true of the general population. Rosen[35] sent a circular to some 5,300 doctors in the New Jersey area and obtained over 1,600 complete replies. He questioned the doctors concerning personal symptoms. The doctors reported a variety of symptoms as a result of smoking cigarettes. Twenty-one per cent attributed cough to this habit. Other symptoms reported were those of sputum production, heartburn, poor appetite, fatigue, headache, irritability, and dizziness. The cardiovascular symptoms were as high as 10 to 15 per cent and included rapid heart rate, extrasystoles, substernal pain, palpitation, numbness, tingling, and coldness of the extremities. In this survey there were 912 doctors who had stopped smoking recently and 630 who had done so for health reasons. Of the individuals who were current smokers nearly 50 per cent stated that they wanted to stop.

Snegireff[37] did a survey of over 4,000 doctors in Massachusetts. Several interesting observations were made. There would appear to be a trend among doctors to stop smoking. Fewer doctors smoke than the general population. Over 50 per cent of the doctors believed that there was a possible connection between smoking and lung cancer. The majority, when they encountered a heavy cigarette smoker in their private practice, advised him to stop or to reduce his smoking.

Other Symptoms Due to Smoking[14, 39]

The most common symptom referable to smoking is what is referred to as the "smoker's cough." This is cited as evidence that all are aware that cigarettes cause symptoms, and the smoker freely accepts this symptom and its cause. The heavy smoker in a way admits the presence of symptoms when he says he does not want to stop smoking lest he gain weight. By this statement he recognizes that with cessation of smoking there is an increased sense of well-being, the appetite curb is removed, and health is improved.

Scott[14] has reported on the effects of smoking on the gastrointestinal system. He reports that smoking induces hunger stimulation and gastric motility. This is probably on a reflex basis since it cannot be reproduced in animals by the injection of nicotine. The same author quotes Annis as stating that the gastric mucosa on gastroscopy was normal in only 8 per cent of heavy smokers. Usually the gastric mucosa was atrophic or hypotrophic. Scott also commented on tobacco amblyopia as a disturbance in vision found mostly in men between the ages of 35 and 40. Malnutrition is also a factor in this complaint.

CORONARY ARTERY DISEASE[4, 10, 11, 13, 14, 21, 22, 27, 31, 35, 39-52]

Attention has been focused for years on the effects of tobacco on the cardiovascular system. Medical students immediately correlate thromboangiitis obliterans with members of the Jewish race who are cigarette smokers. "Tobacco angina," or tobacco heart,[13, 47, 50] is a definite entity characterized by precordial discomfort, ectopic beats, tachycardia and dyspnea. All symptoms are lost when the individual stops smoking. Russek[50] has reported that the symptoms are less with denicotinized cigarettes. It is uncertain whether tobacco angina is due to spasm of coronary vessels or to the increase in blood pressure and tachycardia associated with smoking.

As surveys regarding lung cancer were performed, it became evident that death rates due to coronary heart disease were also high in smokers. Doll[31] studied this particular problem in British physicians. He found that coronary thrombosis as the cause of death was 4.2 per thousand in doctors 35 years of age or more who were nonsmokers. In heavy smokers in the same age group the incidence increased to 5.9 per thousand. I have already mentioned the series of Rosen,[35] who found that 10 to 15 per cent of smoking doctors noted tachycardia, extrasystoles, substernal pain, and palpitation.

Bargeron[41] recognizes, as have others,[47] that smoking causes changes in the electrocardiogram, mainly of tachycardia, slight depression of the ST segment, and flattening of the T wave. This examiner took normal human volunteers and tested coronary arterial flow by catheterization of the coronary sinuses. He found that with smoking there was a significant rise in the coronary blood flow and the heart rate. There was no evidence that in these normal subjects vasoconstriction of the coronary arteries occurs. Buff[43] has done ballistocardiographs in 400 normal males and females under the age of 40. Tests were performed about 2 hours before smoking cigarettes and 5 or 10 minutes after smoking. Forty-two, or about 10 per cent, had abnormal graphs after smoking. This is important since the individuals were so young. Russek[50] studied 65 subjects, 28 of whom were normal and 37 of whom had coronary heart disease. Smoking in all produced a significant increase in heart rate and blood pressure. Sixteen per cent of the normals had ECG changes and some also had ballistocardiographic changes. Roth[13] states that the ECG changes due to smoking may be due either to increased work of the heart or spasm of the coronary arteries. She states that there is experimental evidence for either possibility. She has also found the ballistocardiograph to change after smoking. She noted an important feature—the heavy smoker did not show any tolerance to these changes.

Simon[51] made ballistocardiographs on 17 patients between the ages of 16 to 41. All were smokers. None had cardiovascular symptoms. It should be noted that this is a young group of individuals. There was no change in the ballistocardiograph, but there was a significant rise in pulse rate and a decrease in skin temperature. Buechley[42] has reported a study of some 4,000 longshoremen from California who were followed for a 5-year period. He found that deaths due to coronary heart disease were much higher in the smoker than in the nonsmoker. "These differences (in death rates) show a strong and consistent relationship between cigarette smoking and coronary heart disease mortality, at least in men 40 to 70 years of age."

Dolgoff[45] studied 5,000 white males. Six hundred and eleven had coronary heart disease, and of these 16.2 were heavy smokers. This compared with 11.4 per cent of heavy smokers in the control group. The authors found that the heavy smokers developed symptoms of coronary heart disease at an earlier age than the nonsmokers. Wynder[52] in his study involving the Seventh-day Adventists found that this group had 40 per cent less incidence of coronary heart disease than the general population. When they did occur in the Seventh-day Adventists the individual was older and at about the same age group as in females of the general population.

A huge group has been reported by Hammond and associates.[21, 22, 45] The American Cancer Society is following 188,000 men. Since the onset there have been 11,870 deaths, of which 7,523 (63 per cent) were related to the heart and circulatory system. Included in these groups were cerebral vascular accidents and hypertension. Coronary heart disease was the cause of death in 5,297 individuals. This was 44.6 per cent of all deaths. The death rate was 70 times higher among smokers than among those who had never smoked. The death rate directly increased with increase in the amount of cigarettes smoked. Pipe smokers had the same rate as nonsmokers, while cigar smokers had a significantly higher rate than nonsmokers.

Dorn[4] has reported a somewhat similar study concerning 244,000 veterans who were followed since 1954. He found that the overall death rate for smokers was 58 per cent greater than for the nonsmokers. The men who had stopped smoking prior to 1954 had a lower death rate than those who continued to smoke. However, the death rate was 30 per cent greater than in the men who had never smoked. Cigarette smokers were the most common, and the death rate bore a direct relation to the number of cigarettes smoked. The most common cause of death in tobacco users was cardiovascular-renal diseases. The risk of dying of these diseases is 31 per cent greater for the regular smoker than for the nonsmoker. The death rate from coronary heart disease was 63 per cent higher in smokers than in nonsmokers.

PERIPHERAL VASCULAR SYSTEM[13, 14, 35, 53-56]

Wright and Moffat[56] were the first to publicize the effects of tobacco on the peripheral vascular system. They showed by various experiments that there was a decrease in the skin temperature up to 15° F after smoking. The average was 5.3° F. There was no tolerance in the habitual cigarette smoker. The decrease is due to nicotine.

Friedell[53] used radioactive iodinated albumin to test peripheral vasoconstriction. The test involved 100 young individuals with presumably normal circulation. Seventy-nine per cent were markedly sensitive to ordinary cigarette smoke. The degree of alteration of blood volume averaged 19 per cent in the sensitive male and 33 per cent in the sensitive woman. The author thought that filtered cigarettes decreased the amount of vasoconstriction. Roth[13] has made an excellent study of this matter. She states that it is generally agreed that smoking causes definite peripheral vasoconstriction. Her group used a thermocouple to detect changes in skin temperatures. They found that, with smoking, skin temperature of the fingers dropped an average of 3.2° C, and that of the toes dropped an average of 2.5° C. The blood pressure averaged a rise of 20 mm. systolic and 40 mm. diastolic. The pulse rate showed an increase on the average of 36 beats a minute. It is interesting to note that the habitual smoker did not show any tolerance. The changes are due to nicotine and are not varied with the ingestion of alcohol in an attempt to achieve vasodilatation. In conjunction with this study the authors stated that at the Mayo Clinic "thromboangiitis obliterans rarely if ever was seen in a nonsmoker."

In the study by Rosen[35] previously mentioned, doctors were requested to describe their personal symptoms following the use of cigarettes. Six per cent reported coldness of the extremities. Weinroth[54] made a study of the effects of smoking in patients with diabetes mellitus and arteriosclerosis obliterans. The patients were 301 male diabetics. The conclusion from this work was "regardless of such factors as severity of the illness, adequacy of control, presence of obesity and hypertension, a lower frequency of arteriosclerosis obliterans prevails in general among nonsmokers." Wright[55] states that in his extensive experience the use of filtered, denicotinized or menthol cigarettes was of absolutely no help.

HOW TO STOP SMOKING[57, 58, 59]

If there is any field in which I am an expert, it should be entitled "How to Stop Smoking." I agree with Mark Twain that "It's easy to stop smoking, I've done it a dozen times." In all sincerity, this is the field in which the doctor can directly practice preventive medicine (Spain[59]). It is a field in which the doctor has a real responsibility, one as great as prescribing vaccinations for poliomyelitis. The public will never take this matter seriously until the individual family doctor does so. The doctor must first cure himself. It is interesting to note that in surveys performed in this country and in England fewer doctors smoke than in the general population. Also, more have stopped smoking in recent years than in the general population. Numerous patients have stated that they would have stopped smoking if somebody with authority told them to do so. No patient, however, will stop smoking on the advice of a physician who then reaches for his own pack of cigarettes. The patient often observes that the doctor has a worse cough than the patient.

The only way to stop smoking is for the individual to realize that he is the victim of an addiction which is injurious to his health. The next step is to stop smoking completely. The real cigarette smoker is totally unable to "cut down." He will torture himself for several days and then in a fit of pique will resume his usual cigarette quota.

Complete cessation may begin the moment one decides to stop smoking. He will tell you that following an episode of tachycardia or vomiting induced by a hacking cough he threw away his cigarettes and abstained from that time on. The average person, however, is unable to exhibit such will power. For him, a better plan is to set a target date, such as a weekend away from his associates who are cigarette smokers. Preparation for such a day includes telling these same associates that he will stop "cold turkey" on Sunday. Often changing brands of cigarettes, especially to a milder or nonsatisfying brand, is of help. Patent medicines which claim to cut down the desire to smoke are of absolutely no value. On "D-Day" the patient should realize that this day is the most important of all, and particularly the first 8 hours. His plan should be to get past this particular day and not worry about the rest. Gum and candy are of definite help. I have usually placed such patients on tranquilizers. The help and understanding of the spouse must be obtained, since he or she will bear the brunt of the patient's irritation.

During these first few days of cessation of smoking the patient is encouraged to "baby himself." The concept is that, since he is such a fine person to show such will power, he should be encouraged to buy that wanted new suit or that wanted new hat as a recognition of his fine character. Such a feeling of accomplishment and reward, while it may seem childish, is both effective and important. In a similar vein, the patient should be requested to talk at least daily with his physician as regards his war against cigarettes. He is encouraged and congratulated during such telephone conversations.

The hardest step is association with his smoking friends. Since during these associations the desire for cigarettes is the greatest, it is a quiet sort of duel between the two. It is important, as mentioned, that the smoker inform his friends that he is about to stop and then do so. It is equally important that he inform them of his progress, pointing out at least unconsciously that he is a much stronger individual than they to have taken such a step. This also has the result of talking so much about his strong character that he would be embarrassed to "bum" a cigarette from them.

Finally, the smoker must realize that it requires 2 weeks to note the benefit of stopping cigarette smoking and approximately 1 month to lose the conscious desire for cigarettes. The relief of symptoms, the real sense of well-being, the increased energy, and the improved breathing are sufficient rewards for this struggle.

Conclusion

The smoking of tobacco is harmful to the human body. A short history of tobacco has been presented. The problem of smoking and cancer of the lung is deferred to a later paper. Experimental and clinical evidence of harm to the respiratory system by smoking has been given. Surveys of doctors re smoking have been quoted. Smoking of 1 cigarette raises the blood pressure and pulse in the nonsmoker and the habitual smoker. Coronary heart disease is far more common in the smoker. A plea has been made for the doctor to stop smoking and then to so instruct his patients.

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President's Page

CONTROL OF MEDICAL COSTS

The practicing physician is well aware of the steady increase of operating costs in his practice which over the years have forced him to increase his fees to some extent. Some items of office overhead have increased almost 100 per cent in the last 10 years. His living expenses have also gone up like everyone else's. Yet, physicians' fees, although higher than they were 10 years ago, have risen proportionately less than other health care costs. Much of the increase in overhead has been "absorbed" by an increase in the work volume. Nevertheless, statistics show that the total costs of medical care have gone up appreciably (42 per cent between 1953 and 1958) when figured on a per capita or per family basis. The costs of hospitalization and of drugs and medication have increased particularly fast. While the proportion of the health dollar spent for physicians' services declined from 37 cents to 34 cents between 1953 and 1958, the amount spent for hospitalization and drugs increased from 34 cents to 43 cents.

It behooves us to translate our concern with these facts into well planned efforts to control the rising health care costs wherever possible. There are many things the physician can do in this respect. An obvious place to start is in the management and control of his office overhead through careful avoidance of wasteful practices. Increases in fees should be held to the minimum necessary to cover increased costs which are necessary or unavoidable. Economy in the management of one's personal affairs is good training toward the goal of safeguarding the purchasing power of the patient's health dollar.

We must realize that all wasteful practices in the care of patients lead to increases in the cost of health insurace. And, whereas the consumer may be willing to pay a higher premium in order to obtain greater coverage, he will eventually rebel at paying increasingly higher rates to purchase the same amount of protection. What may prove to be a big step in the right direction was taken by Medical Service of D. C. when it liberalized the coverage of services rendered at the home or office. This should decrease the need for hospitalization for many minor procedures which are customarily done in the office.

Hospitalization costs loom as a very large item in medical care. Although the major responsibility for economy of operation lies in the field of hospital administration, the physician can do much to keep down the expenses of hospitalization. He can restrict to a minimum consistent with good medicine the laboratory, X-ray, and other diagnostic procedures which are ordered in a given case. In the selection of drugs and medications, the cheapest ones which will do the job should be ordered. If surgery in a given case can be done equally well under local anesthesia, the patient will be saved the cost of anesthesia and recovery room. Above all, the physician must resist the occasional request to prolong the hospital stay for the convenience of the patient.

When the Federal Employees Health Benefits Act takes effect on July 1, we will reach a milestone in the life of Blue Cross and Blue Shield. More subscribers will have greater coverage in this city than ever before. The provisions for Major Medical coverage will extend to every Government employee under this contract. It is imperative that all of us realize the tremendous importance of making this work. We will safeguard the fiscal integrity of Medical Service of D. C. if every Participating Physician will render claims for services in accordance with his customary fees to the noninsured.

Victor R. Alfaro.

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Editorials

PUBLIC DRUG DISCUSSIONS

One of the more disturbing aspects of the current investigation of the Senate Subcommittee on Antitrust and Monopoly is the public airing of subjects that are—or should be—solely within the province of the medical profession.

The most recent incident, and perhaps the most alarming one, was a highly publicized debate over the relative merits of 2 new prescription drugs developed for patients with diabetes mellitus. Like other potent specifics, each of these drugs is advantageous for use with some patients and not with all. Only a physician familiar with both drugs and the patient can judge whether this is the best therapy for the patient.

Recognizing the dangers of discussing drugs before an audience unable to appreciate all the factors, a number of responsible executives of medical societies protested the public debate. Nevertheless, the debate was conducted in what

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of the Medical Society of the District of Columbia

has become perhaps the leading public forum on medicine, and the charges and verbal exchanges were reported in the lay media. The reason given for not having this medical symposium conducted in executive session is that the public has a right to the facts.

Nobody would question the public's right to facts about medicine. The danger is that, in openly airing differences in medical opinion about a specific drug, members of the general public will take sides, without realizing that doctors are neither "for" nor "against" a drug, but that they are pragmatic and use it when it offers the best course of treatment for an individual patient.

So far as I can determine, no physicians were in favor of a public airing of professional differences. In fact, the doctor whose testimony gave rise to the debate said, in answer to a question, that he felt no good could come from such a public airing.

What was the result of this display of professional differences of opinion? According to one medical authority, in a letter to the subcommittee chairman, "There are some patients who have become so worried that they have discontinued the drug and do not plan to return to the physician who prescribed 'such a dangerous medicine' for them." These patients, he added, may suffer irreversible deterioration.

Senator Everett McKinley Dirksen, a minority member of the Subcommittee, voiced his concern to the Senate in these words:

"It is rather singular that in the course of some of the testimony . . . doctors expressed doubt about the efficacy of certain drugs, the use of which has been permitted by the Food and Drug Administration . . . . I am rather afraid that if laymen members of a Senate committee, who certainly are not physicians, undertake to pass on the efficacy of such drugs, they may proceed far beyond their jurisdiction . . . and, in the second place, I am afraid such proceedings may generate distrust in the minds of many of the people of the country; and, third, I am afraid they may cast some doubt on the confidence of patients in their physicians. . . ."

The chairman of the Subcommittee received letters from the medical societies of Tennessee, Illinois, Michigan and Wisconsin, asking that the debate be carried out in executive session. They were thinking, no doubt, about the effect of a public debate on the 60,000 diabetic patients now using the drug, and the thousands of others who may have drugs prescribed for them daily. The minority counsel for the Subcommittee remarked that the discussion might "scare the daylights out of patients." But this advice went unheeded.

This debate is only one example of subjects that have been taken to the public which properly belong in the realm of the profession. As a further example, consider the attention given the question of generic name drugs as compared with branded products. The impression has been given the public, although there is ample evidence to the contrary, that every generic product is exactly equivalent to its corresponding brand product but far cheaper.

Although this allegation is ridiculous in its generality, and most doctors know it is subject to many qualifications, much of the public press has accepted it as truth. *Life* magazine, for example, urged its millions of readers to "pressure" their doctors into prescribing generic name medicines. Such actions can pave the way for disappointment, even heartbreak, for many needy patients.

The point is that years of training and a lifetime of practice can leave even physicians somewhat at odds over some of the medical questions raised during the Subcommittee's hearings. Certainly, then, persons outside of medicine are ill qualified to judge the efficacy of drugs or the principles of prescribing on the basis of headlines they've read. This is one area where a little knowledge can be devastating. No good can come from debating medical questions in a public forum but, on the other hand, much of what has helped create a sincerely useful and progressive industry can be destroyed and the doctor-patient relationship impaired—all in the specious belief that the general public should be given information which can be seriously misleading by its limitation in the total picture of therapy.

Austin Smith, M.D.
President, Pharmaceutical
Manufacturers Association

SAFEGUARD OUR WATER SUPPLY*

People expect that their drinking water will be palatable and free of toxic substances and disease organisms. At the present time the District of Columbia and its environs have an excellent source of water in the Potomac River upstream from Little Falls. The importance of maintaining the present high quality of the water in the stretch of river between Little Falls and the confluence with the Monocacy River has long been recognized by area officials. In 1959 the Washington Metropolitan Regional Conference, composed of elected officials of all of the local governments in the Washington area, requested the Interstate Commission on the Potomac River Basin to establish standards for the Potomac River in the Washington Metropolitan Area. The Interstate Commission on the Potomac River Basin recommended that the Potomac between the Monocacy River and Key Bridge be reserved primarily for water supply, recreation, and the propagation of fish and wildlife. The water quality standards would not permit the discharge of sewage or industrial wastes in any quantity sufficient to degrade this section of the river as a source of water supply or as a recreation area. The Washington Metropolitan Regional Conference went one step further and agreed that no sewage effluents at all should enter the Potomac River above Little Falls Dam and below the confluence with the Monocacy River.

The selection of the site for the Dulles International Airport, Chantilly, Virginia, with the attendant possibility of the discharge of sewage effluent upstream of the water supply intakes, would disregard the policy, plans, and measures taken by the communities to protect the metropolitan water supply. Even though the pollution from this proposed plant would be relatively low, other similar small plants would be sure to follow. A number of such plants located in the watershed area immediately tributary to the water supply intakes could result in a "build up" of pollution to a significant figure.

Effluent from a sewage treatment plant is not a desirable source of water supply. If we put all questions of esthetics aside, we still have many problems to resolve when sewage plant effluents are permitted to enter water supply sources. Industrial wastes and many of the synthetic chemical products now in use complicate the problem by creating undesirable tastes and odors or by adding exotic compounds to our domestic water supply, the physiologic effects of which are unknown. Discharge of the effluent from a sewage treatment plant to a water course which serves as a source of water supply can only result in impairment of water quality. Research programs are needed to discover new waste treatment methods for removing those impurities which are not now removed by processes in current use. Many chemical compounds which are of concern to public health now pass through presently used sewage treatment methods and are discharged virtually unchanged. Some of our newer detergents are an example of this.

In the present, and in the future, the Washington Metropolitan Area must rely on the Potomac River at and above Little Falls for its water supply. The discharge of effluent from sewage treatment plants immediately above a water intake is a violation of fundamental public health principles and involves unwarranted health hazards. Experience indicates that sewage treatment plants are seldom built soon enough, big enough, or enlarged often enough. Since interruptions of plant operation occur with considerable frequency, designers incorporate "by-passes" in their plans. When overloading or interruptions in plant operation occur, relatively fresh sewage is discharged to the receiving water course. When such discharges occur into water supply sources there is grave danger that such pollution may be carried to the intakes with consequent impairment of the water supply and danger to the public health.

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* Editor's note: This is the second editorial on the subject of pollution of the Potomac River.

Treated sewage contains large amounts of nitrogen, phosphorus, and other compounds essential to plant growth. These compounds fertilize the receiving water, causing large growths of algae, a source of unpleasant tastes and odors. The successful removal of such taste and odors is difficult and necessitates increased treatment, with resultant increased costs. Sudden fluctuations in raw water quality are difficult to deal with at water supply treatment plants and have resulted in temporary failures to produce water of a high potable quality on a continuous basis. Then, too, there is always the danger of waterborne disease, a specter not yet completely dispelled.

The Washington Metropolitan Area now has an excellent water source. We can maintain this quality if we plan properly and if the entire area acts as a unit to back the foresighted leadership of the Washington Metropolitan Regional Conference in keeping sewage effluents out of the Potomac River in that stretch between Little Falls Dam and the confluence of the Monocacy River.

It is our sincere hope that all sewage originating in the area immediately upstream of our water intakes will be conveyed through interceptor sewers to sewage treatment plants located below Washington.

DANIEL LEO FINUCANE, M.D.
Director of Public Health for the District of Columbia

CORNEAL OPACITIES—A COMPLICATION OF CHLOROQUINE THERAPY

Although there have been several recent reports about opaque deposits occurring in the cornea as a complication of chloroquine (Aralen) therapy, this fact does not appear to be widely known. We have found only a very few of our colleagues who were familiar with this complication even though many whom we asked were regularly prescribing the drug. In the manufacturer's brochure about chloroquine (Aralen) visual disturbances are mentioned under side-effects, especially when the patient is on continued high dosage, such as is required for collagen diseases. Then it is stated that the "side-effect may be transient or subside on withdrawal or reduction of dosage." In the brochure about Triquin, the visual disturbance of diplopia is mentioned as a possible complication and that 1 of 7 patients was unable to tolerate such visual disturbance.

Probably Alving and his associates[1] in 1948 were the first to report eye symptoms during chloroquine administration. They noticed that one-half of one of their volunteer group of 20 patients who were receiving 0.3 Gm. of chloroquine in 2 doses daily for 77 days developed visual disturbances. These people experienced difficulty in changing from near vision to distant vision but did not show any objective abnormality when tested for visual acuity or accommodation. However, they did not state whether the corneas had been carefully examined.

In the same year Berliner and his associates[2] reported that 18 out of 32 volunteers on the drug complained of visual disturbances. The subjects complained of blurring of vision,

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[1] ALVING, A. S., AND OTHERS: J. Clin. Invest., 1948, **27**, 60 (pt. 2).

[2] BERLINER, R. W., AND OTHERS: Ibid., 1948, **27**, 98 (pt. 2).

IMPORTANT NOTICE

For physicians who desire to participate in the
SCIENTIFIC EXHIBIT
at the
CLINICAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION
to be held in
Washington, D.C., November 28–December 1, 1960

Application Forms are now available at the
Executive Offices
The Medical Society of the District of Columbia

Forms are to be filled out and returned to:
Local Committee on Scientific Exhibit, AMA
J. Ross Veal, M.D., *Chairman*
1718 M Street, N.W.
Washington 6, D. C.

CLOSING DATE FOR RETURN OF APPLICATIONS: JULY 15

sensation of eyes feeling heavy, and a vague sensation of something wrong with the eyes. However, these observers also did not report whether the corneas had been examined.

In 1957 Calnan in a personal communication to Scott[3] mentioned lenticular opacities from chloroquine. In a subsequent adequately detailed account Hobbs and Calnan[4] reported that 20 patients were found by slit-lamp microscopy to have corneal opacities while on chloroquine. Of these patients, 5 had no visual symptoms, while the others complained of blurred or misty vision, colored rings around lights, and difficulties in focusing. They also reported that 4 patients complained of eye symptoms but did not show any objective changes in their eyes. They pointed out that the exact nature of these deposits, their degree of permanence, and their relation to dosage and duration of therapy are still uncertain.

About the same time Calkins[5] in this country reported 7 cases of bilateral corneal opaque deposits. All of his patient cases had visual complaints, chiefly that of fuzziness about objects in bright light and halos about objects at night. Calkins described diffuse haziness of the cornea and curved spoke-like linear opacities with a central apex. He further noted that examination by the biomicroscope was necessary to observe these changes early, but that in advanced cases they could be observed macroscopically. All of his patients became markedly improved or symptom-free when they stopped using the drug. However, 1 patient who continued to take chloroquine had an increase both in visual symptoms and corneal opacities. Likewise, Zeller and Deering[6] reported 10 cases of corneal opacities in patients taking chloroquine. Their findings were essentially the same as those previously recorded. However, they noted that 2 of their patients with severe involvement appeared to have fluorescence of the cornea in ultraviolet light, which suggests that the opacities may be due to actual deposit of the drug. They also noted that their patients had regression of the opacities 2 to 4 months after cessation of the drug.

In our own practice we have found very fine lenticular opacities in 1 out of 3 patients who had taken chloroquine. This patient had taken chloroquine 2 to 4 tablets daily for 14 months, then Triquine 1 to 2 tablets a day, but had stopped the drug 4 weeks prior to examination.

Consequently, from these reports and observations, we must realize that corneal opacities may occur as a complication of chloroquine therapy whether given as such or in combination with other antimalarials. Hence, we should have periodic corneal examinations by the slit lamp of any patient who must take the drug for any appreciable period of time.

RAYMOND ALLEN OSBOURN, M.D.

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[3] SCOTT, O. L. S.: Practitioner, 1957, **179,** 387.

[4] HOBBS, H. E., AND CALNAN, C. D.: Lancet, 1958, **1** (7032), 1207.

[5] CALKINS, L. L.: A.M.A. Arch. Ophth., 1958, **60,** 981.

[6] ZELLER, R. W., AND DEERING, D.: J.A.M.A., 1958, **168,** 2263.

ANNUAL REPORT OF PRESIDENT OF MEDICAL SERVICE*

There falls upon the President of Medical Service a heavy load of responsibility. I do not mention this as a bid for your sympathy, but only to point out that I am aware of the responsibility that falls upon the President and I do not view the situation lightly. On the other hand, a man's attention to the many and varied problems which confront Medical Service almost daily can become a stimulating and gratifying experience. I have found it so myself, and I know that I have gained immeasurably in knowledge and confidence concerning the management of Blue Shield affairs. I hope that Medical Service and the physicians of Washington have benefited accordingly.

A year passes very quickly, and because of the deliberate approach which physicians take to problems of any magnitude, it would seem that the accomplishment of major objectives would be a slow and tedious process. However, in reviewing the activities of the Board during the past year, the accomplishments of Medical Service in this short period of time are noteworthy. The financial losses suffered by Medical Service in 1959 were anticipated in the beginning of that year, and steps to overcome them were being taken at the time they were occurring. Recognizing that there would be need to increase subscription rates, the Board also concluded that the program should be broadened to provide benefits for surgery outside the hospital as well as in. Thus, the actuaries in developing new rates included a factor to provide benefits for surgery regardless of where the surgery was performed. Working closely with the administration, the Board of Medical Service moved to arrange for an announcement of the rate increase and to establish the effective date in such a way that there would be the least impact on interests which would be most sensitive to a rate change. Arrangements were made to provide full and complete information concerning the reason for the change, in order that subscribers would understand that the increase resulted from the increased use of physicians' services by subscribers and did not result from an increase in the amount paid to physicians for those services. Using a little hindsight here, we have reason to feel that the presentation of the rate increase was properly managed. In December, the first month that subscribers were called upon to pay the new rate, enrollment increased instead of decreased, as might have been expected. During the months since the increase has been in effect, our income has exceeded expenses as anticipated, and Medical Service is in a sound financial position at this time. It is the function of the Board of Trustees to see that this is so, and I feel that the Board has discharged its responsibility with proper deliberation and concern in this instance.

The application of the Relative Value Scale, recently adopted by the D. C. Medical Society, to the problems of prepayment programs has been under consideration by the Board of Trustees. It is expected that consideration may be given to the use of the Relative Value Scale for subscribers of low income, including the low-income aged, and that use of the Relative Value Scale to determine a customary and reasonable charge may be the only control against excesses which would otherwise develop under the Major Medical portion of the health benefit program for the Federal employees. It should be borne in mind that the Federal employee program is one in which the Government is giving the physician "a little rope," and it may turn out to be enough for him to "hang himself" and implicate others of us at the same time. Under the Major Medical section of the Federal employee program, Government funds are being used to pay 80 per cent of whatever a physician might charge, provided the charge is customary and reasonable. It will be up to somebody to determine whether or not the charge is customary and reasonable, and it is my hope that this determination will be made by the Medical Society through the use of the Relative Value Scale, rather than by the Government.

The Blue Shield portion of the Federal employees' health benefits program is, of course, another of the subjects to which your board devoted itself during the past year. I will not dwell on the details of this program, since Dr. Stubbs, who is the Nation's authority on the subject, will review it in detail a little later. However, it should be recognized that Medical Service has, for several years, been adapting itself to a program which can be subscribed to by other Blue Shield Plans under the National

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* This is the President's Report, somewhat abridged, which was presented at the Twelfth Annual Meeting of Participating Physicians of Medical Service of the District of Columbia, April 27, 1960.

Accounts Agreement, and that an unprecedented uniformity in the scope of benefits which can be serviced by Blue Shield Plans throughout the country has made possible the opportunity for Blue Shield to participate in the Federal employee account. The adaptability of Medical Service to a uniform national contract has made it possible for Medical Service to participate in the Blue Shield National Accounts Agreement, and your Board has worked concientiously to make this possible. The resulting contract may not provide all the services that we might have hoped for, but the development of a working program on such a large scale is an achievement of which all Blue Shield Plans, including Medical Service, can be proud.

During the past year, the Board has evidenced concern about a tendency, on the part of some physicians, to submit claims without the signature of the subscriber or spouse, and action was taken to insure that the signature of the subscriber or spouse, as well as the physician, would be on the claim in order that both parties might attest to a service being reported. Most physicians were obtaining the signature of the subscriber or spouse, and those who were not are doing so now. As a by-product, this requirement has served to clear up some misunderstandings with regard to the rights of the subscriber and the physician concerning additional charges. It appears that some physicians did not obtain the signature of any subscriber, assuming that all subscribers were over the income level and subject to additional charges. The requirement that the claim form be signed by the subscriber in the space where the income level is designated should serve to clear up any misunderstandings on this point.

Also, during the past year, a number of claims have been received from physicians requesting payment of benefits for the medical management of a patient recovering from a surgical procedure. The contract is clear about the benefits to be provided under such circumstances: It states that benefits will not be provided for visits made during hospitalization following a surgical service. When the Surgical-Medical Contract was first introduced, the Board felt that some exception would have to be made to this provision, and it developed that the number of exceptions requested became progressively greater as more exceptions were made. The Executive Committee has recommended that the terms of the contract be adhered to in such instances, and the subject is under study by the Board at the present time.

Another problem faced by Medical Service, which involves the services of more than one physician in a case, resulted from claims being submitted by two surgeons for one episode of surgery. Obviously, Medical Service cannot pay more than its schedule allowance for a surgical procedure when additional surgeons participate in the surgery. If the surgeons involved wish to have the fee allocated in a manner agreeable to both of them, Medical Service will comply with their joint request to that effect.

Presently under consideration by the Board is a recommendation from the Executive Committee that subscribers be notified of the amount paid to physicians on their behalf. It has been noted that subscribers have no way of knowing whether or not the physician has been paid unless the physician makes it a point to indicate payment has been received from Medical Service. Subscribers often lack knowledge of the portion of the physician's bill which is subject to payment by Medical Service. It is expected that notice to the subscriber of the amount paid on his behalf should help to emphasize the value of Medical Service to the public, eliminate some misunderstanding with regard to additional charges by physicians, and provide a form of external audit to assure that services reported have actually been performed.

Realizing that Medical Service is receiving an unexpected volume of claims for new areas of coverage which are provided under the Surgical-Medical Contract, and concerned because most of the newer benefits are provided outside the hospital, where they are not subject to the same controls which exist for hospitalized patients, the Board recommended that a Committee on Trends be established to study and evaluate trends in claims reporting and the indications for services which are not subject to routine controls. Such a committee has been formed. The Committee on Trends has representation from the surrounding county societies as well as strong representation from the District of Columbia. The Committee is autonomous and has elected its own chairman. We hope that the Committee will contribute to the continuation of a program designed to provide benefits for medical care in hospitalized cases and diagnostic services in the physician's office. Such a program is a strong answer to the demands of the public, union membership, and other interests which seek the broadening of diagnostic benefits by prepayment plans in an effort to avoid the use of Government or closed panel medicine for the financing of early diagnosis and treatment.

I have outlined briefly some of the subjects which have been considered by the Board of Medical Service during the past year, and some which will be considered in the immediate future. As I become more intimately involved in the affairs of Medical Service, it is a constant wonder to me that an organization of such magnitude can so closely resemble a living, breathing entity. We will always be setting our sights on new horizons. Our efforts to develop Medical Service as an acceptable method of prepaying the cost of physicians' services and the vigor and strength of our whole purpose reflect the individuality and strength of mind of physicians who participate in the program.

There are times when the problems we encounter in the management of Medical Service are so purely local that the relationship of Medical Service to other Blue Shield Plans may be momentarily obscured. However, it must be recognized that the efforts of physicians in the District of Columbia and the surrounding areas to produce a satisfactory and fair method of prepaying the cost of physicians' services are being duplicated all over the country. I have just returned from attending the Annual National Conference of Blue Shield Plans in Los Angeles, and it was heartening to recognize the ever-increasing interest and support of physicians to the principle of service-benefits, or guaranteed costs to the public.

Doctors everywhere are coming to realize that the principal concern of the public with respect to medical costs is a gnawing fear of the unknown. If medical costs are known and if physicians can assure their low- and middle-income patients that the Blue Shield payment will be payment in full, then the medical profession will have answered the needs and fears of the public in an affirmative manner and will have maintained for physicians the best of the free enterprise system in medical practice. While I believe that physicians all over the country are responding to the needs of Blue Shield with alacrity, I also believe that we here in Washington are in the vanguard, doing our best to lead the way, and that we will do so in the years to come as we have in the past.

JAMES A. DUSBABEK, M.D., *President*

NEW RULING ON MEDICAL EXAMINERS FOR PILOTS

Effective June 15, 1960, the Federal Aviation Agency requires that student and private pilots be given their medical examinations by designated medical examiners. This rule reinstates a practice which was in effect from 1926 until 1945.

In announcing the reëstablishment of this practice, Dr. James L. Goddard, the Civil Air Surgeon, has emphasized his previous statements that any physician may be considered eligible for designation as an examiner.

His statement, made public February 11, 1960, follows:

"In order to have a better understanding of the proposed rule, I wish to point out that it is designed to accomplish the following needed improvements in the administration of the Agency's medical certification program:

1. To maintain a group of medical examiners who are clearly responsive to the needs of public safety in the performance of examinations and the issuance of medical certificates to airmen.

2. To permit the administration of training programs to maintain the quality of performance of medical examiners and to permit the dissemination of special instructions pertaining to the needs of civil aviation.

3. To bring into the program those physicians who have the professional qualifications and a demonstrated interest in the medical certification field.

4. This would permit the designation of any qualified physician who, by his application, has demonstrated interest in the program."

Those physicians in localities where flying activities are conducted may wish to consider filing an application for designation by writing to the Civil Air Surgeon, Federal Aviation Agency, Washington 25, D. C.

Designation as an aviation medical examiner will qualify the designee to examine both Class II (commercial) and Class III (student and private) airmen, including control tower operators. Instructions concerning the required procedures, standards, and equipment will be supplied to those who apply.

Since commercial and airline transport pilots have always been required to obtain examinations from specifically selected physicians, there are presently some 2,000 aviation medical examiners previously designated and located throughout the country. Expanding aviation activities will result in a continuing need for additional examiners. There are at present some 400,000 active civil airmen, of whom approximately 240,000 are examined each year

CLINICAL STUDY ON INTESTINAL MALABSORPTION SYNDROMES

The coöperation of physicians in nearby areas is requested in a comprehensive study of intestinal malabsorption syndromes recently initiated at the Clinical Center of the National Institutes of Health. The purpose of the study, conducted by the National Institute of Arthritis and Metabolic Diseases, is to explore the various disease processes that impair the normal absorptive function of the small bowel. Particular emphasis is placed on investigation of the mechanism by which elimination of wheat gluten from the diet improves intestinal absorption in many patients with idiopathic steatorrhea and celiac disease. The problem of whether these diseases are hereditary in nature is also under study.

Patients are needed who have either one of the primary malabsorption states (celiac disease, idiopathic steatorrhea or tropical sprue) or one of the forms of secondary malabsorption (steatorrhea associated with: deficiencies of bile or pancreatic enzymes; gastrointestinal surgery; "blind loops"; granulomatous disease such as regional enteritis, tuberculosis, sarcoid; amyloidosis of the intestine; Whipple's lipodystrophy; neoplastic involvement of the intestine or its lymphatics; vascular disease of the bowel, periarteritis, atherosclerosis; parasitic infection; malnutrition; folic acid deficiency or undetermined cause).

HONOREES OF ST. GEORGE SOCIETY

DR. THEODORE WINSHIP (center) AND DR. J. KEITH CROMER (left) have just been awarded certificates of honorary membership in the St. George Society, a medical student group, from MONROE DOWLING, JR., of Howard University, President of the Society. Story on page 368.

Because of the vagaries of the malabsorption syndrome and the length of time required for the study (at least one month, and usually longer) patients must be evaluated carefully before admission to the study. It is essential to be certain that malabsorption does exist. It is helpful to know whether the patient has steatorrhea, an abnormal small bowel pattern by X-ray examination, a low prothrombin time, a low serum carotene, hypocalcemia, osteomalacia, hypoalbuminemia, a low serum iron, or anemia.

For patients admitted to this study, a program of therapy is instituted when the disease process is known to be treatable. Upon completion of their studies, patients are returned to the care of their referring physicians to whom complete summaries of the Clinical Center evaluations are sent. It is sometimes desirable to arrange for occasional follow-up visits by the patients. These, however, supplement rather than substitute for visits to the patients' personal physicians.

Physicians interested in the possibility of referring individual patients should write or telephone Dr. Leonard Laster, Senior Investigator, National Institute of Arthritis and Metabolic Diseases, Bethesda 14, Md. (Oliver 6-4000, Ext. 4201).

BLUE CROSS AND BLUE SHIELD AS METHODS OF FINANCING HEALTH CARE*

JEROME POLLACK

Program Consultant, Social Security Department,
United Automobile, Aircraft, and Agricultural Implement Workers of America, AFL-CIO

> "... *He who freely magnifies what hath been nobly done, and fears not to declare what might have been done better, gives ... the best cov'nant of his fidelity.... His highest praising is not flattery, and his plainest advice is a kinde of praising....*"—John Milton

The currents of health are flowing fast. Within the body, in the environment, in the doctor's office, in the hospital and in the laboratory the relationships between disease, prevention, relief and therapy are changing rapidly. Remarkable gains have already been registered. Ahead are unmistakable signs of impending break-throughs. Although some setbacks are also probable, we have every reason to expect an acceleration of progress and a greater volume, rising standards, and broadening range of health care.

Even more sweeping have been the currents in the economics of medicine. The past 20 years have seen the sharpest rise in private expenditures for health care, from $3 billion to what may be $19 billion before the year is out. The deadlock between public and private health insurance was broken. A private system of prepayment has established itself and spread to a majority of the people. The change-over in financing of health care from sick to well, from post- to prepayment has progressed faster than anyone had anticipated to become the principal vehicle for financing hospitalization, a major factor in paying for surgical care, and continues to grow irrepressibly.

New Stage of Prepayment

Carried along on this rapid tide, prepayment has passed into a new, decidedly different and decisive stage of its development. On all sides, physicians, hospitals, carriers and the public have begun to sense that they have entered a new terrain. Approaches that seemed appropriate yesterday no longer work. Previously accepted concepts and aims are being challenged. Are we seeking to protect people's pocketbooks against serious loss or forging an instrument for financing health care? Competition is intensifying and leading in uncertain directions. Is it improving or undermining the product? What will happen if insurance companies specialize in covering favorable risks at lower cost while Blue Cross and Blue Shield act as a repository for virtually all comers at higher cost? Growing attention is being paid to the cost of health care and there is a rising public recalcitrance over rate increases in prepayment. Is prepayment contributing to excessive cost? Consumers are becoming more insistent in being heard, in gaining representation, and in pressing for features that they deem necessary even to the point of creating new programs. New forms of prepayment are burgeoning, from the major medical policy to the labor health center. What role do they have to play and what impact will they have on Blue Cross and Blue Shield? The pace is quickening; no sooner did the conflict over free choice come to a climax with the Report of the AMA Commission on Medical Care Plans than it was replaced by an even more acute struggle over how to finance health care for the aged. In the preoccupation with the crisis of the moment, as yet there has been little awareness that prepayment is in a profoundly different stage. Nevertheless, ready or not, prepayment has entered a decisive period in which it will have to clarify its aims, to place health considerations first, where they belong, and prove itself capable of meeting the composite needs of consumers and purveyors for the sharing of cost and advance payment of a much larger proportion of health care. A strong voluntary system can have an excellent life expectancy. A weak one may go the way of Canada before the decade is out. It is none too soon to examine the forces that have brought us to where we now are and that are likely to decide the outcome.

Thus far, we in America have gone through two distinct stages in developing our vast voluntary system of prepayment. The first takes in the early plans which go back over a century. These were the forerunners of the present-day independent plans. Some were enlarged "company" medical services; others took the form of employee hospital associations; still others were jointly sponsored by management and labor. A few were founded by clinics and groups of physicians. For the most part, these were early expressions of the consumers' quest for prepayment, many inspired by the tradition of mutual aid. But the preoccupation of the people was with other matters. Medicine had not attained the state where its cost and its value made prepayment imperative. The consumers did not have the resources, nor did their plans have the structure needed for spreading power. The independent plans remained small and scattered until an entirely different force propelled prepayment to the majority of the people.

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* Presented before the Annual Conference of Blue Cross and Blue Shield Plans in Los Angeles, California, April 3, 1960.

That force was the economic crisis, beginning about 30 years ago, which ushered in the second stage of prepayment. The depression made action imperative. By 1933, consumer expenditures for private health care had dropped from $3 billion to $2 billion. The burden of unpaid bills rose. The volume of care fell, imperiling the otherwise unparalleled progress that had been made and was still to be made in this century.

The need for action was felt most acutely by the voluntary hospitals faced with fixed costs, fewer paying patients, vastly enlarged demands for free care, and a decline in endowments and gifts. Occupancy had dropped to 55 per cent. Many hospitals closed. The President of the American Hospital Association warned of "the possible breakdown of the voluntary hospital system in America." Pressed by these imperatives, the hospitals acted decisively. They adopted guiding principles and proceeded to develop plans that long gave the greatest impetus and leadership to the massive development of prepayment in America.

Payments to physicians had dropped even more than to hospitals. But physicians were more fearful of such "social experiments" which threatened interference in their practice and in time were bound to become a formidable economic influence in medical care. There was some active resistance. For a few additional years the reservations and objections continued to outweigh the pressing need for prepayment. But gradually the merit of certain phases of some plans came to be acknowledged. Moreover, the sweep of social reform, which had brought governmental old age, survivors and unemployment insurance, appeared to be getting ready to add health insurance to the Social Security system. While the economic crisis directly stimulated the hospitals to go into prepayment, this political threat appears to have had a greater influence in galvanizing medical societies into action. They, too, began to approve of prepayment in principle and to adopt plans of their own to avert legislation and to keep control, or at least a balance of power, in medical hands.

Medicine moved to get under the wire before the Government could take over. But, irrespective of the threat of legislation, the fundamental lesson was that hospitals and doctors cannot afford to neglect the economic base of their practice. An underdeveloped financial underpinning for care is a latent deficiency that can become acute enough to harm the health of people and undermine the work of doctors, hospitals and all who provide health services. Although we never expect a return of that panic that put prepayment into orbit, the lesson is still pertinent, for prepayment plans have a long way to go. We not only need prepayment, but must advance and perfect it.

The hospital associations, medical societies and insurance companies, following along similar lines, had the capacity to spread prepayment rapidly and widely throughout the country. They found a receptive population, far too well acquainted with the indignities of the charity ward and anxious to avoid it at all cost. Enrollment exceeded everyone's expectations—a level that many believed could be attained only by compulsion. This year premiums for prepaid health care will probably exceed $5 billion, and benefits of more than $4½ billion will likely be paid.

The crisis in hospital financing was soon broken. There has been a steady increase in per capita payments by consumers for hospital care. Direct payments remained about the same; prepayment, however, rose from $3 per person in 1948 to about $18 this year. The less completely insured segments of health care continued to be susceptible to the press of the economy and some even registered reductions during the postwar recessions. Hospital payments, however, were remarkably well insulated from economic caprice and showed an almost unbroken growth. Expenditures for physicians' services were also stabilized but, as they were less completely insured than hospital payments, they were less reliable, while the least insured items such as drugs occasionally suffered setbacks. Prepayment not only stabilized the financing but provided support for unprecedented progress and growth. Even with the economic recovery, if health care, especially in the hospital, had continued to depend primarily on the direct payment of patients, there would not have been as steady, as stable, as accessible a source of financing, and the standards of care could not have progressed as far as they have. But, in the process, the hospital and the physician also acquired a new dependence on the willingness of subscribers not only to continue their regular payments but to support the rising cost of care and of prepayment.

The political crisis was also broken. True, proposals to provide health insurance for Social Security beneficiaries have leaped into national prominence. In spite of the controversy now raging, voluntary prepayment on the whole is not in clear and present danger of replacement by legislation. On the contrary, the hearings on the Forand Bill found longstanding advocates of national health insurance reversing their earlier position and accepting the voluntary system for the great bulk of the population. Walter Reuther testified that he held it to be the special genius of Americans that we know how to use governmental and private efforts side by side. Many people must have reversed themselves from mid-1942 when a *Fortune Magazine* survey found that almost three-fourths of all Americans (74.3 per cent) believed that the Federal Government should collect enough taxes to provide medical care for everyone who needs it. There was not a single dissenting majority in any income or occupational group or section of the country. At that time only 1 out of 8 Americans had any health insurance, and there were scant grounds for optimism that voluntary efforts could reach enough people with enough protection and in enough time. Today, the voluntary system has won not only *de facto* recognition but some real acceptance. If we set aside the financing of health care for the aged, few are now seeking Federal financing or Federal sponsorship of insurance for the unretired. The Wagner-Murray-Dingell Bill might have solved some of the problems in financing but could have frozen a pattern that already looks archaic after just a few years.

As recent events have shown, labor reserves its inherent right to press for legislation if need be. However, not without some reservations, it is on the whole actively participating in and doing much to improve the voluntary system. On the other hand, the coalition that came together to avert legislation is now seriously split on how voluntary prepayment should be run and even over what its aims should be. Many who were opposed to a governmental program were not really in favor of a voluntary one. These now resent elements of compulsion in the voluntary system. Many are apathetic and some are resisting the steps that have to be taken if the voluntary system is to succeed.

The period of extremely rapid enrollment is over. Although the job is by no means finished and ways still have to be found to extend coverage to the less easily reached segments of the population, to preserve it during lapses of employment, and to continue it in old age, nevertheless, the spread of coverage is now well advanced. The future growth of prepayment will be more vertical than horizontal.

In the preceding stage, prepayment was sponsored primarily by the purveyors of health care and by insurance companies following along similar lines. The consumers were relatively passive and accepted what was available. Only recently have they discovered that the control of prepayment is largely in the hands of hospitals and physicians. Consumers are now questioning whether their interests have been adequately protected in the transaction; whether prepayment is contributing to unnecessarily high cost. They are troubled by what may happen to people who do not have employer contributions to help defray the cost or when their coverage lapses, and what happens to the not inconsiderable number without prepayment whose chances to acquire it may be portrayed just a little too optimistically. Now we see a rising consumer concern over cost, appeals to public bodies to review and regulate rates, requests for investigation of the conduct of prepayment, demands for greater consumer representation on the governing boards, and a resumption of consumer initiative in sponsoring plans that offer features not otherwise available.

The injection of prepayment, even to a limited extent, has profoundly altered the economics of health care. Adaptive changes toward a new equilibrium are the essence of this new period. If prepayment is now to grow vertically rather than horizontally, it must have deeper and more effective controls. Financial stability is not an issue, but financial equity very much is. Prepayment is not under serious threat of replacement, but it needs some of the impetus that came from that threat.

HOSPITALIZATION

The pressure for this new equilibrium has been felt most keenly by Blue Cross. Having ventured further into prepayment, Blue Cross sooner began to experience its strains.

In return for prepayment, hospitals were willing to offer and to support service benefits. The standards of hospital prepayment rose quickly. The 120-day hospital service contract, now generally available throughout the country, remains one of the most valuable benefits in all prepayment. With a few minor improvements Blue Cross can offer a standard of hospital protection of unassailable value.

But the hospital service plans face the public with a relatively static offering. For what appear to be the same benefits, they require more money with great regularity. This has produced for Blue Cross its most acute immediate problem. In the flush of postwar affluence, people had been only too glad to be able to pay for prepayment. But they were not prepared for the regular progression of rate increases, and judging by what has happened, neither were the plans.

Most plans approached the public with a congenital fear. Long accustomed to dealing with an elite group, the hospital community was thrust through prepayment into an intimate and crucial contact with the public at large whose willingness to make its regular payments in anticipation of the need of care had become critical. Many hospital people were not reconciled to the public's right to question their rates. Often it was difficult to pry from a plan the data to justify the amount it was requesting. Any resistance to rate increases was regarded as destructive, even when the necessity for an increase was conceded, but only the amount was at issue. While plans would often grow panicky at mere grumbles from the public, they also failed to sense the gravity and appropriateness of public concern over the conduct, cost and content of prepayment.

True, the furor over rates attracted hostile elements. There have been hit-and-run attacks and "kangaroo court" proceedings by people alien or opposed to Blue Cross concepts. There have been attempts to compel Blue Cross Plans to adopt deductible and co-insurance features. There even have been pressures to outlaw service benefits and to prohibit Blue Cross from entering into contracts with hospitals.

But excesses can usually be corrected and errors answered. Public inquiry is not a matter of manners but of prerogative. People who agree to pay in advance for the full cost of hospital care have every valid rason for wanting to know that they are getting their money's worth. And, there have been grounds for fearing that rate hearings and investigations might merely "whitewash" Blue Cross and "explain" the costs of care rather than investigate or justify them.

As the rate controversies unfolded, the public found that Blue Cross rates involve many matters of judgment, methods, assumptions, and practices over which there could be legitimate differences. Prepayment was intended to increase the utilization of hospitals. If it had not restored occupancy, the hospitals would have failed. But there was no reason to assume that it would stop at the right point. Prepayment has stimulated some faulty utilization, which needs to be corrected by direct controls and obviated by broader benefits to reduce the economic incentives for needless hospitalization. The cost of care, the propriety of formulas for paying the hospitals, the impact of bed supply on the cost of prepayment, the amounts allocated by prepayment plans for reserves and for operating costs, the content of benefits, the composition of governing boards, and the rights of subscribers all require thoughtful, careful and competent examination. If the public wants service benefits, it must be prepared to pay for the legitimate increases in their cost. But its continued confidence requires valid assurances that unwarranted costs are being scrupulously resisted.

Most of all, the rate pressures have revealed the unresolved status of Blue Cross. When Blue Cross acts in its original role as agent for the hospitals, it gets into trouble with the public and is ordered to bargain "at arm's length" with the hospitals on behalf of subscribers. When it attempts to side with the public in advancing strict reimbursement formulas and the like, Blue Cross runs into difficulty with its constituent hospitals.

Prepayment can and must serve both masters. Controls can be compatible with a voluntary system. Voluntarism is not anarchy. Nothing is better calculated to bring compulsion than an unwarranted voluntarism in the face of abuse or a one-sided approach to at least a two-sided problem.

Some of the mounting tensions have been suspended to await the outcome of investigations now in progress. There may be some danger in expecting too much from the investigations. The public turned to them partly because it was at a loss in knowing what to do and it may have asked some investigating bodies to do more than they really can. The studies may clarify some of the ingredients but the need for timely and sound decisions will remain as ever with the hospitals, the plans, and the public.

MEDICAL CARE

The prepayment of medical care has lagged behind hospitalization and has all along been beset by greater difficulties. As late as 1940, the so-called "miscellaneous and unclassified" plans, small and scattered as they were, covered more people than the medical society-sponsored plans and insurance companies. Blue Shield went through a longer and more difficult period of gestation than Blue Cross, and its paternity at times still remains in question. It did not receive as strong an endorsement from physicians as Blue Cross had from hospitals. To this day, some doctors continue to question whether medical societies should be "in the insurance business" at all. Unlike Blue Cross, which took a quick lead and held the field until 1950, insurance company coverage has outweighed Blue Shield from the beginning.

Recently, however, Blue Shield has been catching up both in enrollment and in the movement toward service. Ten years ago, service benefits, where they existed, were available principally to families earning from $3,000 to $4,000 a year. Today the typical family income ceiling is $6,000. Some plans have gone further to raise their income ceilings to $7,200, $7,500, $8,000 and up to $9,000. Some offer service benefits without income ceilings.

In spite of this progress, indemnity benefits still prevail for physicians' care. Blue Shield Plans still offering indemnity have often been chosen or retained more for their promise than their performance. Indemnity is understandable mainly as an early or transitional form of prepayment. Nonetheless, it is seriously defective. It is mainly an expression of noncommitment by the physicians. Lacking a definite understanding as to what physicians will charge, the insurers protect themselves by setting limits to their liability. This fails to give the patient the predictability as to cost that he needs and that could be provided through prepayment. At best, the status of indemnity payments is ambiguous. At worst, indemnity adds a substantial amount intended to cover most or all of the fee but for which the patient may receive little in return. At best, indemnity is a benefit with a deductible at the wrong end. At worst, it has given rise to excesses in which prices for medical care have been padded in a way that resembles the scandals in automobile pricing a few years ago which resulted in Congressional hearings and legislation requiring the posting of car prices.

Indemnity dealings are harming the prestige of medicine beyond the remedy of public relations. Both the profession and the public would be vastly better served if a mutually acceptable way were found to provide service benefits for most people.

PREPAYMENT TO DOUBLE IN DECADE

The extent of protection is still very shallow. Although a majority of the people are now covered, only one-fourth of all private expenditures for health care are prepaid. Prepayment has reached a little more than half of all private payments for hospital care and about a third of payments to physicians. Even among those with prepayment, it is doubtful whether more than one-third of their total expenditures are prepaid. There may be room for question over how far prepayment can, or should, go toward covering all expenditures, but there is no question that the present protection could be doubled without straining the upper limits of insurability. And this is just what is likely to happen. Judging from its past rate of development and the unmet need, and barring unforeseen developments, by the end of the Sixties prepayment will probably cover virtually all private hospital care and most physicians' services, and significant beginnings will be made with other segments of care now largely uncovered. People have repeatedly indicated that they want and need more of their health care prepaid and that they are ready to pay for it. The segments of care still uncovered expose them to a financial risk of greater magnitude than the items now prepaid. The few comprehensive plans now in operation make it abundantly clear that the present struggles of people to meet the uninsured costs of care are largely an unnecessary privation. The next advance will be largely in prepaying physicians' services and will require not only far greater initiative by physicians, but a much greater acceptance of prepayment.

THE MAGIC BULLETS OF MAJOR MEDICAL

It was management personnel, searching for broader protection for themselves, who set off the revolt of consumers against plans limited to hospitalized illness. This revolt dominated most of the past decade and gave Blue Cross and Blue Shield its greatest setback. Seeking to meet this demand, an outstanding casualty insurance company drafted the twin features of deductibles and co-insurance, which had long been standard in casualty coverages—serviceable, but not miraculous—and applied them to health insurance. The insurer intended a modest experiment in extended care. Major medical soon became the magic bullets of health insurance.

The time was ripe for those looking for an easy way out. In the tremendous build-up that followed, major medical appeared to be a simple way to extend the scope of benefits broadly, to continue protection for years instead of months, to keep costs under control or even reduce them, to relieve prepayment of unpleasant policing responsibilities, to eliminate bothersome small claims and to restore proper objectives for health insurance—a marvelous wedding of wishful thinking and masterful merchandising that must be ranked as the "Davy Crockett" craze of health insurance. Rather than crawl cautiously from segment to segment of care, major medical seemed to offer a way to leap to comprehensive protection. Fee schedules were thrown away much as the miraculously cured cripple is supposed to throw away his crutches. It was proclaimed that prepayment had started at the wrong end and was proceeding in the wrong direction. People who had never been reconciled to service benefits were attracted by the salutary possibilities of direct employee participation in the cost.

There was much unmedical talk about the unimportance of small expenditures and the desirability of economic deterrents to health care, about which much was said but little was understood. Worst of all, some physicians were beguiled into making excessive charges that could harm medicine more than any possible attack from outside.

Only now are we awakening from the enchantment, with, as might be expected, no little hangover. Within three months after a fee schedule was discarded by one major aircraft company, the average surgical fee increased 17 per cent and there was an unexpected loss of nearly $2 million. Mounting costs under major medical have dampened hopes that co-insurance and deductibles would neatly control cost. Insurers are now promoting a return to fee schedules and no longer rushing to throw out basic coverages. Major medical is now being reappraised.

Its reappraisal will be less damaging than some may think. The illusion of security offered by deductible and co-insurance and the promise of controls that they seemed to hold forth made otherwise conservative institutions remarkably adventuresome. Major medical was a move away from indemnity toward benefits paying a large percentage of the total bill once the deductible was served. The rejection of indemnity by one of its principal sponsors is a good sign that indemnity is on its way out. Major medical focused much attention on the need for controls; even if co-insurance and deductibles fail as controls, the issue of valid and workable controls can no longer be put off.

Major medical insurance showed that even the more conservative consumers will not wait for more comprehensive protection. It showed that economic controls addressed primarily at the subscribers will not work—at least alone. It showed that insurance cannot merely reimburse people for care and assume that utilization and charges will remain unaffected. Thus, by an interesting evolution, a form of insurance that originally disparaged fee schedules is quite likely in actual operation to prove to be a potent force for settling the fees to be charged insured patients. Fundamentally, it was a venture into comprehensive and long-term protection without medicine's backing. In spite of its original intentions, major medical is proving to be another demonstration of the need for commitment to prepayment by physicians and hospitals.

Medicine's Commitment

Even though the medical profession may not be contractually tied to major medical, it is implicated, committed and judged by its performance under major medical as under any form of health insurance. The only course open to the profession is to participate in prepayment and to make it work. Medicine will have to decide how it wants to participate; how much through plans of its own sponsorship; how much through others. But it can never escape its commitment.

A Time for Renewed Leadership

Jolted by higher-than-expected costs, subscribers to major medical plans are again receptive to good basic plans. Blue Cross and Blue Shield Plans now have a great opportunity for regaining leadership. But they will not win it if they adopt a "Little Bo Peep" philosophy and heed Mother Goose's advice to expect their lost sheep to come home wagging their tails. Subscribers are not likely to return to the limited plans that prompted them in the first instance to adopt broader benefits.

Blue Cross and Blue Shield Plans have something that major medical never had: a close working participation of hospitals and physicians. With this head start it is now possible to make vast progress in needed extensions of prepayment and to recapture leadership. A whole progression of new benefits ranging from very modest increments to truly comprehensive prepayment would find an eager market. However, Blue Cross and Blue Shield do not appear to be ready for this development. They have been slow in advancing extended benefit contracts of their own. Instead, a great many have adopted carbon copy imitations of major medical. To enter the field today, with these unimaginative imitations, is to misread all of the signs.

Independent Plans

Just as the past two decades saw major changes in financing, the next few decades may see important changes in the organization of health care. It would be wrong to conceive of this solely as a controversy between group and solo practice. We face the largest increase ever in the number of people to be cared for. The utilization of health care has increased sharply. Higher standards of care are part of a rising standard of living and of social responsibility. A number of patterns are likely to emerge as our needs unfold, as scientific advances occur, and as we attempt to adjust our resources to our needs.

The independent group practice prepayment plans have come forward as one way of keeping pace with the advancing technology of medicine and as a major salient in the drive toward comprehensive prepayment. Labor has been deeply impressed by the independent plans. Group practice has received authoritative endorsements and many believe that it is bound to grow. The physicians that it has attracted have demonstrated great dedication to the advance of prepayment. The plans they have formed have provided direct service for a much broader range of benefits than are generally available and their cost has been relatively modest.

Bitter struggles have long attended the development of these plans. Only now do we appear to be emerging from an unedifying chapter of medical history in which the attempt was made to destroy closed-panel plans rather than compete with them. The American Medical Association's Commission on Medical Care Plans has made a valuable contribution in pressing for tolerance and objectivity. Paving the way to the Larson Commission were such agreements as those initiated by the Kaiser Foundation Health Plan, the General Motors Corporation, and the UAW, which provided for dual choice of plan and facilitated the move toward coëxistence by removing the sense of battle to extinction. In dual choice, each individual subscriber is given an option either to participate in a closed panel plan or in one in which all qualified practitioners may participate. This gives each individual access to both approaches to medicine and to prepayment. The election of a panel is free choice. It is just as deliberate an action as the selection of a solo practitioner. Under dual choice, the issue becomes one of competition. Such competition is in the public interest and can have a healthy influence on both types of plan.

The Role of Organized Medicine

Many doctors, however, strongly believe that fee-for-service payment is necessary to preserve incentives for good care. They say that, while they will serve people under any plan, it would not be the same if they had to take care of a roster of patients under some capitation arrangement. They fear that they might give less intensive care under the circumstances, and that, at the same time, the patient would also be deprived of the opportunity to take himself and his fees to another doctor.

If fee-for-service has the merit that is claimed for it, and many doctors obviously think so, there is every reason to advance plans employing fee-for-service payment. Consumers are not proposing cut fees. They have too much at stake and too great a desire for good care. As you know, most of them respect the competence of their physician and want to be able to stay with him.

But good fee-for-service plans will not be developed by people who are reluctant—Emerson said, "Nothing great is ever accomplished without enthusiam"—nor by people fearful of correcting what needs to be corrected. We can assume an increasingly discerning consumer who will play an enlarging role. He will judge whether fee-for-service is justified by its performance or is a rationalization for high fees.

So far, the voluntary system has responded above all to threats—the threat of legislation or of competing plans. When the threats have abated progress has perceptibly slowed down, and at times reverses have occurred. The obvious lesson for those seeking more comprehensive and more advanced protection would be to build ever bigger and more menacing threats. If medical society action is to be a reluctant, crisis-engendered affair, consumers would have every reason to develop competing plans, not only for the new protection they would yield but also to improve the competitive offerings.

But medicine has a much more positive role to play than warding off the threats of legislation or of competing plans. Instead of a reluctant progression toward a greater involvement in prepayment, intimidated by fear of social forces, handicapped by reliance on second-hand insurance principles and actuarial theories, medicine should assume far greater initiative and leadership in prepayment. Only through medicine's commitment to prepayment, only through its active support, only by being directly involved in advancing what is good for prepayment, only when it recognizes the advantages of a mature system of prepayment, are we going to have the kind of prepayment that we want and need in America.

THE HUMOURS AND COMPLEXIONS OF PREPAYMENT

Prepayment is still at about the stage of the complexions and humours in the development of medicine. That is revealed by the uncritical acceptance of such doctrines as deductibles and co-insurance as panaceas. This is the time for a Vesalius to study the anatomy of prepayment and for a Harvey to advance its physiology. Prepayment needs a Jenner, a Semmelweis, a Lister, and especially a Flexner. It needs observation, experimentation, and the careful formulation of new principles.

PRINCIPLES OF INSURANCE

There is a widespread notion that the original sin of Blue Cross and Blue Shield was to depart from traditional insurance precepts, and that if only they would acknowledge their error and operate like insurance companies a great many difficulties would disappear. The classic principle that insurance should replace large financial losses has long left in doubt whether health care is an insurable risk at all, although this hasn't prevented insurance companies from entering the field. Plans offering service rather than monetary benefits, covering small as well as large expenditures and for care that the insured himself can occasionally initiate, are bound to have inferiority feelings in flaunting the theories of competitors with such greater resources and so much longer experience.

On closer inspection, however, these principles are far from immutable. Actually, they are honored more in the text than the home office; this is what has made insurance companies so truly strong and effective.

Insurance does not always replace losses. The proceeds of life insurance frequently go to beneficiaries who have suffered no pecuniary loss whatever. Insurance does not always replace large losses; in competition with the motor clubs—the service plans in automobile road service—$3 and $5 claims are routinely insured, and we hear few complaints that it costs more to settle the claim than the benefit is worth. Insurance goes beyond cash benefits to provide direct service, as, for example, legal defense in automobile liability actions—which may be a form of closed panel practice. When required, as under Workmen's Compensation legislation, insurance has gone all the way into preventive care, fully-paid medical service benefits, rehabilitation, and cash income replacement. Some day it will probably do the same for the nonoccupationally disabled. The very same insurers who proclaim that people should budget for periodic health examinations and that this is not a function of insurance provide for savings as a well-accepted function of life insurance. Is there any real reason why health insurance could not likewise encourage people to save for the periodic health examination and, by settling the financing, stimulate them to avail themselves of this important instrument of the early detection of disease?

Health care is one of the most complicated and important contingencies to which insurance methodology has ever been applied. It would be strange indeed if principles arising out of the more primitive contingencies would fit health care without modification. Yet, these classic insurance preferences have long had an inhibiting influence in the development of prepayment, much as the Galenic tradition inhibited medical progress. They have tended to make health care conform to insurance, rather than insurance more responsive to health. Physicians will appreciate the analogy. Just as Galen's errors in attributing to man the anatomical features which he observed in lower animals long held sway, might we not expect similar errors in applying the lower forms of insurance to health?

For a time, Blue Cross and Blue Shield appeared en route to evolving a higher form of insurance. They were proud of the distinction to the point of calling themselves prepayment. The people sensed, if they didn't fully understand, the struggles to apply insurance methods to a new contingency requiring new concepts and new approaches—the health-supporting orientation that came from the close participation of hospitals and physicians, the attempts to spread the risk broadly over the community, and the concept of community service as expressed by community representation on its governing boards. The public responded with support and confidence. Recently, the tendency to imitate insurance companies has greatly increased. Terminology and concepts have been drifting closer to commercial usage. The move toward experience rating, in many cases, greatly advances the transformation.

Blue Cross and Blue Shield cannot hope to beat the insurance companies at their own game. They do not have the money, the resources, or depth of management. If Blue Cross and Blue Shield become just another set of insurance companies, they can expect to derive at best only a temporary advantage in the market because of tax advantages and what competitors call "discounts." These are of insufficient magnitude and in the long run will not prevail. The more Blue Cross and Blue Shield resemble insurance companies, the less they deserve any special considerations from participating hospitals and physicians, and in their taxes. It is mostly the community service aspects which justify such concessions. When community rating is gone, these advantages are likely to go too.

True, consumers have been inconsistent, some demanding dividends, others indifferent, and only a few supporting community rating. But, in this phase of prepayment consumers have been less organized and less sophisticated than the prepayment plans. The long-term strength of the voluntary system will greatly depend on its risk-sharing base. The further the progression into experience rating, the narrower the base becomes. Who are the "bad" risks? They are predominantly groups with a large number of women, with many older people, or families blessed with a large number of children. Shall they be denied protection or forced to accept damaging compromises because the risk-sharing mechanism would not accommodate their greater needs? Under some Blue Cross Plans with experience rating, the cost to a family of hospital service benefits alone exceeds $25 a month, about twice the community rate. To permit such conditions, in a field so vital, is to run headlong into governmental intervention in order to achieve a broader sharing of the cost.

If the plans still believe in community rating, they should take active steps to resist its rapid erosion by explaining to the public what is at stake. Community rating has often been given up by those who believe in it, when a strong stand and an adequate explanation might have won the day. It is worth a better fight. One opportunity for strengthening community rating, if there is a reawakening in this direction, would be around new expanded contracts that could be offered uniformly to the community.

THE THIRD PARTY FALLACY

Prepayment has been called "third party" payment. The fear that some third party would interpose itself between physician and patient and interfere with medical practice has led to an attempt to erect a Chinese Wall between payment and treatment, broken only by a cashier's window. But payment alone inseminates practice. After observing the many ways in which insurance influences whether, when, where, by whom and, to some extent even, how care is rendered, I have coined the word "insurogenic" medicine to call attention to the powerful influence that prepayment exerts on practice. Insurogenic medicine is an invisible third party. It is practiced by nearly everyone—agents, brokers, insurers, employers, unions, welfare funds and many others. To the extent that money is injudiciously and unwisely applied to health care, it can become a more harmful barrier between patient and physician than was feared when the third party fallacy was conceived.

There is no such thing as a third-party payment. There always are more parties to the transaction. In prepayment, responsibility is shifted from the patient to those who agree to pay—to the patient himself when well, to his employer, union, association or welfare fund—and through them to a prepayment plan or insurance company. There is a similar delegation of responsibility from the physician to the medical society, from the hospital to its association, and to their prepayment plans. In the rapid course of events, neither patient nor physician were fully ready to delegate this responsibility, nor were the recipients ready to assume it.

The patient wants the most complete protection. It is he who suffers from the limitations in coverage. But when well he is more concerned with the regular payments that he and his employer incur. Fundamental though they are, the patient's needs alone cannot govern. Group purchasers may properly reject poorly conceived protection, such as dread disease insurance, from which the patient might have benefited.

The typical purchasers are new to the field. Often insufficiently informed and ill advised about health needs, they have repeatedly bought superficial or poorly designed protection. Vast variations remain in the participation of employers and employees: their interest, their knowledge, their dedication, and their financial involvement.

But health refuses to remain a fringe matter. Increasingly, labor and management are setting aside collective bargaining antagonisms, at least after bargaining is over, and recognizing that as co-contributors and co-beneficiaries they have less to gain by struggling with each other over who pays how much and more to gain from improved protection. Gradually, a consumer's interest is emerging, as purchasers set objectives and concern themselves with benefit design, value and the end-product of good care.

The physician-medical society-prepayment plan relationships are more complicated and unsettled. The physican often finds his medical society more susceptible to social and political pressures. It may be moving into prepayment further than he is prepared to in setting fee schedules, mediating overcharges, and adopting policies toward prepayment. At times it may be difficult for him to decide whether his society has been won over by labor or is acting for the good of the profession. He may have legitimate complaints about imperfections in fee schedules that have only recently begun to be corrected, inequities in the weight given to various specialties, and in the flow of benefits to various segments of the profession. There is much the same conflict between surgery and medicine in prepayment as ever in medical history. In the general preoccupation with surgery, internal medicine and other specialties have unquestionably been neglected; broader prepayment should provide for more balanced and equitable participation for physicians. Many of the objections raised by physicians against prepayment, or against labor as an aggressive voice in prepayment, actually arise out of unresolved difficulties in these very complex relationships among physicians, their societies, and their plans. Trying to find their place in prepayment are dentists, optometrists, and other professions who have at times despaired of appropriate recognition and representation by Blue Cross and Blue Shield and have established their own prepayment plans.

Unsettled relations between Blue Cross and Blue Shield have at times burst into bitter strife as in California, Oregon, and now in Wisconsin. The public has not gained from this fraternal strife. Blue Cross and Blue Shield are allied not only by insignia, advertising, and sharing of staff functions, but by their basic position in prepayment. To the public they appear as the same plan, credited with each other's strengths, blamed for each other's weaknesses. The public would rather have them settle their differences and hold them together accountable for the composite product.

Labor and medicine regard each other over a wide gulf, especially today. Fear of each other's social aims has enlarged the natural differences between provider and purchaser. The social forces at issue have been in motion for centuries. Our age is bound to make substantial advances in new standards of economic security and personal well-being. In spite of the differences that now exist, labor and medicine are ultimately destined to live in harmony. It is in the physician's interest to be able to give good care; certainly it is in the patient's interest to receive it. A mature system of prepayment can facilitate and assure this process, and both parties will benefit.

Prepayment has brought together the parties essential for finding improved methods of financing care and who have an intrinsic and unalterable interest in the care that is rendered. It is an intimate relationship for which none was prepared. They have come to prepayment from different paths, pursuing different goals. They see the problems from a different perspective and, to some extent, always will, as some of the differences are intrinsic. Yet the central question is whether a voluntary system composed of hundreds of separate plans sponsored by hospital associations, medical societies, commercial insurance companies, consumer groups, labor, industry and others, with authority spread over a great number of hospitals, hospital associations, physicians, medical societies, medical groups; dentists, optometrists and other professions; employers, unions, welfare funds, agents, brokers, consultants, insurance commissioners and still others, can meet the reasonable needs of society for prepaid health care or whether at some point it will break down as a tower of Babel, unable to reconcile the many voices and interests. In spite of these complicated conflicting relationships, voluntary prepayment must clarify its aims and deliver definitive protection, well designed to serve the health contingency. The job is not merely to reconcile existing conflicts, but to develop a system that will be responsive to the financial requirements of continuing rapid change in health care. Some persist in the belief that the less prepayment the better, and that no prepayment would have been best. But to dream of the "good old days" of no third-party payment is futile. We can never go back. Not only is the consumer committed to prepayment, but the profession is irretrievably tied by the same knot. The only alternative to its further expansion and improvement would be some other social method of financing and distributing cost. The burden will never again fall solely on the afflicted, nor will the public again permit any segment of health care to approach bankruptcy. This is the mandate to perfect prepayment.

CLINICAL STUDY ON HAND-SCHÜLLER-CHRISTIAN DISEASE

The coöperation of physicians is requested in a study of eosinophilic xanthomatous granulomatosis, and most specifically Hand-Schüller-Christian disease, being conducted by the Radiation Branch of the National Cancer Institute in the Clinical Center of the National Institutes of Health. This study has as its primary purpose a search for therapeutic methods which may favorably affect the course of the disease.

Patients appropriate for this study are those with a histopathologic diagnosis consistent with some phase of eosinophilic xanthomatous granulomatosis who have active disease. It is preferable, of course, that such patients not be seriously ill, as this precludes long-term studies of effects. In order to minimize the effects of prior treatment, those patients who have not received antifolic-acid, radiation or steroid therapy for at least one month prior to their evaluation shall be considered most appropriate for the program, but previously treated patients will be considered for admission. Accepted patients will be studied for various periods of time and may be followed subsequently by either the referring physician or physicians at the Clinical Center. A comprehensive and individual program will be instituted for each patient and will include appropriate supportive and symptomatic care and experimental therapy.

Physicians interested in the possibility of referring such patients should write Dr. Charles G. Zubrod, Clinical Director, or Dr. J. Robert Andrews, Chief, Radiation Branch, both of the National Cancer Institute, Bethesda 14, Md., or telephone Oliver 6-4000, Ext. 4346 (Zubrod) or Ext. 3351 (Andrews).

DR. COPELAND ACCEPTS EDUCATIONAL POST IN TEXAS

Dr. Murray M. Copeland resigns as Professor of Oncology at Georgetown University Medical School to accept a position with the University of Texas, M. D. Anderson Hospital and Tumor Institute of the Texas Medical Center at Houston, Texas, effective July 1, 1960. Dr. Copeland will become Assistant Director for Education. Dr. R. Lee Clark, Director of the M. D. Anderson Hospital facility, in making the appointment, indicated that, while Dr. Copeland's primary function will be with the Office of Education, his duties will include professional and public relations, with coverage of the office of Director in Dr. Clark's absence.

MURRAY M. COPELAND, M.D.

Of Dr. Copeland, Dr. Clark says, "He is a qualified surgeon and radiotherapist and it is anticipated that he will have professional duties relating to the care of the cancer patient, the amount of time to depend upon his availability in the execution of his primary assignment. We feel that his background of training and professional experience make him eminently suited to the furthering of our program in education as it pertains to neoplastic disease and that his demonstrated administrative ability should be of material aid in our contemplated development."

Dr. Copeland has been associated with the Georgetown University Medical Center for 13 years as head of the Department of Oncology. While enthusiastic over his new assignment, he has expressed regret at the thought of leaving his colleagues and friends in the Washington area, although he will retain an association with the faculty of Georgetown University School of Medicine.

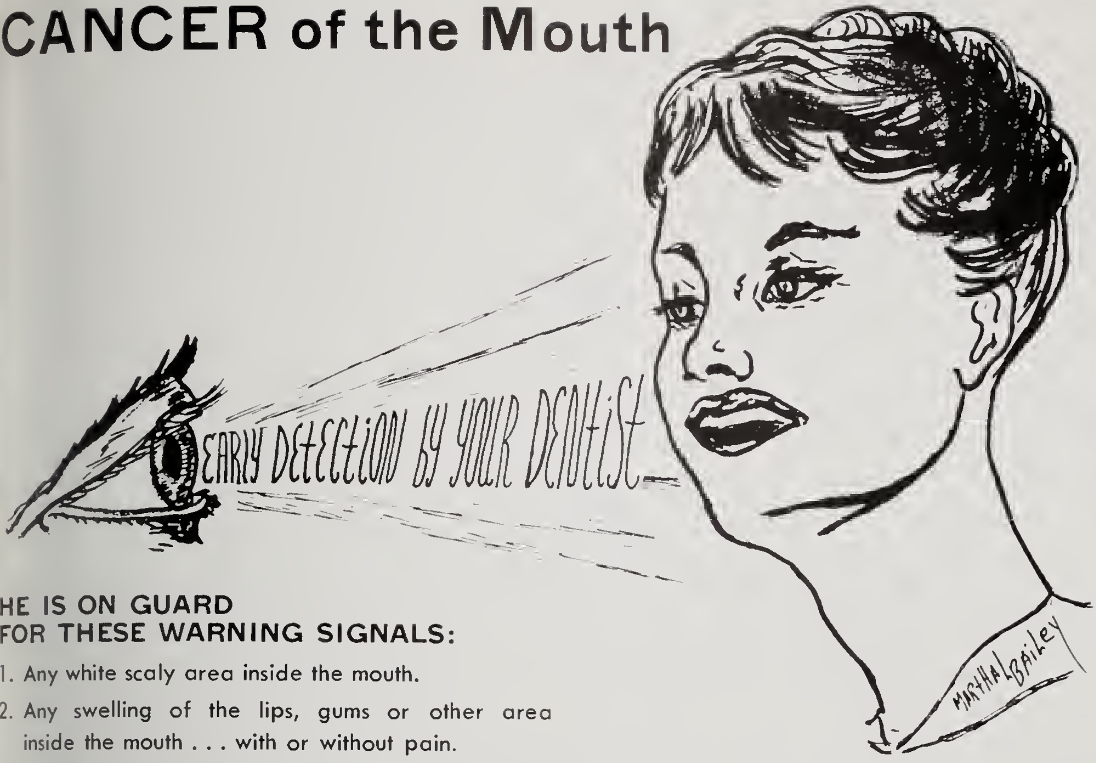
Dr. Copeland is a native of Georgia and a graduate of Oglethorpe University, which honored him with an honorary degree in science in 1955. Graduating in medicine from Johns Hopkins University in 1923, he continued his education with postgraduate study in surgery and pathology at Johns Hopkins Laboratory and Medical School, surgery at the Mayo Clinic in Rochester, and cancer research at the Memorial Center for Cancer and Allied Diseases in New York City.

During the War he was on active duty from 1942 to 1945 and held the commission of Colonel at the time of his release from service.

Dr. Copeland is Director-at-large of the American Cancer Society and a member of the National Advisory Cancer Council of the National Cancer Institute. He is Past President of the D.C. Division of the American Cancer Society and Past Chairman of the Cancer Control Committee of the National Cancer Institute.

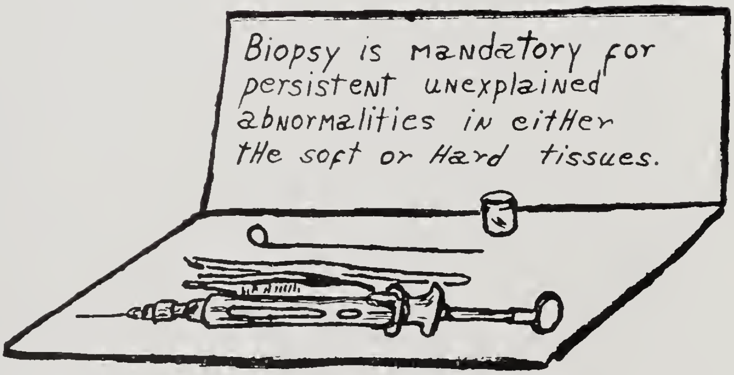
He is a diplomate of the American Board of Surgery, a Fellow of the American College of Surgeons, and a member of many other scientific organizations. He became affiliated with the D. C. Medical Society in 1948. He has written and lectured extensively.

CANCER of the Mouth


EARLY DETECTION BY YOUR DENTIST
MARTHA L BAILEY

HE IS ON GUARD FOR THESE WARNING SIGNALS:

1. Any white scaly area inside the mouth.
2. Any swelling of the lips, gums or other area inside the mouth . . . with or without pain.
3. Any sore spot or ulceration of lips, tongue or other area inside the mouth that does not heal promptly.
4. Any repeated bleeding in the mouth with no apparent cause.
5. Any numbness or loss of feeling in any part of the mouth.



Biopsy is mandatory for persistent unexplained abnormalities in either the soft or hard tissues.

RESEARCH
EDUCATION
SERVICE
®

Physicians are invited to order a copy of the booklet, "The Challenge of Oral Cancer." Copies of a leaflet for the public, entitled "Your Family Dentist Can Detect," are available in quantity for distribution to your patients. Call or write:

American Cancer Society
District of Columbia Division, Inc.
810 18th Street, N.W.
Washington 6, D. C.
EXecutive 3-3690

On the Lighter Side

There are times in our hectic daily rat race of living when one little old belly chuckle is worth the weight of an hour's boredom listening to some erudite egghead mouthing platitudes in the form of pseudoscientific trivia. There are times when we as physicians get "fed up to here" with medical meetings, medical reading, and medical information that is shot into our quivering brain cells under the high pressure feeding of constant hospital staff meetings, specialty societies, scientific dinners, reading innumerable medical journals, sorting through mountains of medical-pharmaceutical mail, and listening to the unending huckstering of the drug salesmen. Therefore, in order to save as many of my readers as possible from their inevitable fate, I am catering to the funnybone of the medical profession and filling this space with chuckles.

* * * * *

A young woman was having her dreams psychoanalyzed. She told the analyst that she had not dreamed the night before. "Young lady," snapped the medico, "I can't help you if you don't do your homework!"

The mental cases most difficult to cure are the persons who are crazy about themselves.

Man shouting at his mother-in-law: "Some day you are going to go too far—and I hope you stay there."

"Look what I got for my wife," exclaimed Jones, pointing to a shiny new convertible.

"Lucky dog," his friend responded. "Where did you make a trade like that?"

Then there was the fellow in Alaska who spent all his time throwing rocks at Arctic birds. He didn't leave a tern unstoned.

One doesn't have to be a football coach to know that a halfback is what you DON'T get when you lend your wife fifty cents.

A youthful figure is what you get when you ask an older woman her age.

The best thing to save for your old age is yourself.

Love is really just a condition of the mind when the mind is out of condition.

Said one buck deer to the other, "I wish I had his doe."

From a sixth-grade examination paper: "People in this country are allowed only one wife. This is called monotony."

Sunday school teacher: ". . . And that is the story of Jonah and the whale. Now, Willie, what does this story teach us?"

Willie: "That you can't keep a good man down."

After seating himself with a tray of food, a man in a cafeteria discovered he had forgotten to bring a glass of water. Before getting it he wrote this note and placed it over his soup bowl: "Don't eat this soup. I put my dirty finger in it."

Returning with his water he found this reply: "I ate your soup but I didn't see your finger."

"Me slept with my Daddy last night," said the small child to the kindergarten teacher.

"I slept with Daddy last night," the teacher corrected.

"Well you must have come in after I fell asleep," replied the child, ' 'cause I didn't see you."

The tired Doctor Jones got his wife to answer the phone by the bed and to say that he was out. When it appeared that his wife could not answer some of the questions being asked, he whispered the answers to her.

"Thank you very much, Mrs. Jones," said the voice, "but is the gentleman with you fully qualified to answer medical questions?"

A prominent endocrinologist lecturing to medical students: "When you find hirsutism in a woman you should be sure to go over her with a fine-tooth comb."

(*Continued on page 372*)

News and Personals

GENERAL NEWS

Dr. William Ross Morris, Chairman, presided at the regular meeting of the **Executive Board of the Medical Society of the District of Columbia** on April 25, 1960. In a letter to the Board, Dr. Wallace M. Yater, Editor of MEDICAL ANNALS, submitted the name of Captain R. O. Canada, MC, USN, Chief of Medicine, Naval Medical Center, to succeed Captain H. E. Richardson, MC, USN, Consulting Editor of the ANNALS, who is being assigned to another facility. The Board approved the new appointment.

President Alfaro proposed two new committee appointments: Dr. Benjamin Manchester, to the Committee on Medical Care, and Dr. George W. Metcalf, to the Committee on Mental Health. Both were approved by the Board.

Nominees submitted by the President to serve as corporate members of Hospital Service Agency were approved. They are as follows: Drs. William H. Beard and Roland Scott, to serve for 1 year; Drs. Margaret M. Nicholson and C. Willard Camalier, Jr., for 2 years; Drs. O. B. Hunter, Jr. and Frank S. Pellegrini, for 3 years.

Wednesday, November 16, was designated as the date for the Annual Business Meeting of the Society.

The Second International Congress of Neurological Surgery will be held in Washington, D. C., on October 14–20, 1961. The Secretary-General announces that plans for active participation in the Congress by way of papers and exhibits are now under way. Neurosurgeons who wish to take part should secure proper application forms from the Secretary-General: Dr. Bronson S. Ray, 525 East 68th Street, New York 21, N. Y.

The Washington Heart Association advises that applications for research support to be conducted during the fiscal year beginning July 1, 1961, are now being accepted by the American Heart Association. The deadline for applying for research fellowships and established investigatorships is September 15, 1960. Applications for grants-in-aid must be received by November 1, 1960. Stipends in all categories have been increased this year because of the rising cost of living.

Established Investigatorships are usually awarded for 5 years, subject to annual review, in amounts ranging from $7,500 to $9,900 yearly, plus dependency allowance, to scientists of proven ability who have developed in their research careers to the point where they are independent investigators. An additional grant of $500 is made to the investigator's department to assist in defraying the expenses of his research program.

Advanced Research Fellowships are awarded for periods of 1 or 2 years to postdoctoral applicants who have had some research training and experience but who are not clearly qualified to conduct their own independent research. During the second year of tenure they will be permitted to spend up to 25 per cent of their time in professional and scientific activities not strictly of a research nature, provided that these will contribute to their professional development and do not involve services for a fee. These stipends range from $5,500 to $6,000 annually, plus dependency allowance. An additional grant of $500 is made to the investigator's department.

A limited number of Research Fellowships are available to young men and women with doctoral degrees for periods of 1 or 2 years to enable them to train as investigators under experienced supervision. Annual stipends range from $4,000 to $4,500, plus dependency allowances.

Grants-in-aid are made to experienced investigators to help underwrite the costs of specified projects, such as equipment, technical assistance, and supplies.

Further information and application forms regarding research awards may be obtained from the

Assistant Medical Director for Research, American Heart Association, 44 East 23rd Street, New York 10, N. Y.

Dr. John R. Heller, Director of the National Cancer Institute, has been granted leave by the Service to accept the presidency of the Memorial Sloan-Kettering Cancer Center in New York City, July 1.

The Center will be the new corporate body consisting of the present Memorial Center for Cancer and Allied Diseases and the Sloan-Kettering Institute for Cancer Research, which are now operated under a joint committee.

Dr. Heller has been Director of the Cancer Institute since 1948. **Dr. Kenneth M. Endicott,** now an Associate Director of NIH, will succeed him as Director of the Institute. Dr. Endicott was Chief of the Cancer Chemotherapy National Service Center of NCI from 1955 to 1958. He is a graduate of the University of Colorado School of Medicine (1939).

The American College of Obstetricians and Gynecologists has established a **Higher Education Loan Program** to enable resident physicians to complete their training in obstetrics and gynecology. Loans up to $5,000 will be made to help physicians through their specialty training period and early practice. Further information may be secured by writing to Mr. Donald F. Richardson, Executive Secretary, 79 West Monroe Street, Chicago 3, Illinois.

A new professional association, **The American Society for Clinical Nutrition,** was announced in Atlantic City on May 1, 1960, during the meetings of the American Society for Clinical Investigation and the American Federation for Clinical Research. Arrangements are being made to affiliate the new organization with the American Institute for Nutrition.

Membership will be by nomination and will include physicians and other biological scientists actively engaged in research and teaching in the areas of human nutrition and metabolism. The organizing group plans to adopt *The American Journal of Clinical Nutrition* as its official publication.

The first President of ASCN is Dr. Richard W. Vilter, Professor of Medicine and Chairman of the Department, University of Cincinnati, College of Medicine. The Society has been incorporated under the laws of the State of New York, and will have its headquarters at the office of the Secretary-Treasurer, who is Dr. Robert E. Hodges, Associate Professor of Medicine, University of Iowa, School of Medicine, Iowa City.

George Washington University has recently received grants for research totalling $111,658 from the National Institutes of Health. Of this amount, Dr. Louis K. Alpert, Professor of Medicine, and Dr. Paul K. Smith, Professor of Pharmacology, will utilize $58,584, from the National Cancer Institute, to direct a study to determine whether certain compounds which have been successfully tested on animals will be of help in the treatment of cancer in human beings. This study has been under way since 1954.

A grant of $9,775, from the National Heart Institute, will be used for a study of blood flow as related to lung elasticity, under the direction of Dr. George A. Kelser, Jr., Assistant Professor of Medicine.

Dr. Alpert and Dr. Kelser are Active members of the D. C. Medical Society.

Eastern Dispensary and Casualty Hospital held dedicatory ceremonies on April 30 for its new **Rogers Memorial Addition,** named after the late Dr. Joseph D. Rogers, President of the Board in the 1920's, to whom is credited much of the prestige the Hospital enjoys today. The new addition increases the bed capacity from 135 to 250. The 4-story building, combined with the complete modernization of the old structure, cost $3.6 million.

Georgetown University School of Medicine has awarded summer research scholarships to 20 District area high school juniors, 15 boys and 5 girls. They were selected from 325 applicants, all with the highest qualifications and recommendations. They will participate during July and August as members of actual research teams, working on funded research projects in basic or clinical science. The project has been commended by Dr. Louis M. Orr, President of the American Medical Association, and by Dr. Leroy E. Burney, Surgeon General of the Public Health Service.

The Washington Academy of Medicine has elected the following officers:

Dr. Joseph H. Roe, *President*; Dr. Errett C. Albritton, *Vice President*; Dr. Angus M. Griffin, *Secretary*; and Mr. Robert C. Cook, *Treasurer*.

Dr. Benjamin F. Dean was elected to the Board of Directors of the Academy, and Dr. Daniel L. Borden was appointed to the Academy's Committee on Admissions.

The D. C. Chapter of the American Academy of General Practice reëlected its officers at a business meeting and scientific program, held on April 26, 1960, in the Medical Society's library. The officers are:

Dr. Beveridge Miller, *Chairman;* Dr. Ernest H. Aschenbach, *Vice Chairman;* Dr. W. Robert Perkins, *Secretary;* and Dr. Russell M. Tilley, *Treasurer*.

The Medical Council for Northern Virginia, at its meeting on March 16, 1960, elected the following officers for the coming year:

Dr. James Moss, Alexandria, *Chairman;* Dr. Peter Soyster, Fairfax, *Vice Chairman;* Dr. Preston Titus, Alexandria, *Secretary;* and Dr. Michael Puzak, Arlington, *Treasurer*.

Dr. Robert Guilladeu, of Fairfax, will be the Chairman of the 1961 Clinical Assembly.

Drs. Moss, Soyster, and Guilladeu are Associate members of the District Medical Society.

PERSONALS

At the Annual Medical Staff Dinner of the Washington Hospital Center, held at the Hotel Statler-Hilton, April 16, two staff members, **Dr. Horatio N. Dorman and Dr. William H. Jenkins,** were honored for outstanding service to the institution and presented with the traditional gold-headed canes. Dr. Dorman served as Chief of Staff in Urology at Emergency Hospital before it merged with the Center. He is Past President of the Mid-Atlantic Section of the American Urological Association. Dr. Jenkins was Senior Surgeon in Otolaryngology at the Episcopal Eye, Ear and Throat Hospital before the merger and is Emeritus Professor of Otolaryngology of George Washington University School of Medicine.

Winners in the essay contest for resident staff members were as follows: Dr. Leon Schechterman, first prize of $100 for an essay on Lindau's disease; Dr. Leonard H. Flax, second prize, $75, for his essay on a new surgical drain; Dr. Cetin K. Aydar and Dr. Oshin Der-Stepanian, duplicate third prizes of $50 each.

Dr. W. Calhoun Sterling was appointed by the Board of Commissioners in April to the Welfare Council of the District of Columbia. This Council acts in an advisory capacity to the Director of Public Welfare, Gerard M. Shea.

Dr. Stevens

Dr. Harold Stevens, Professor of Neurology at George Washington University School of Medicine, was awarded the Certificate of Merit by the Jacobi Society of Washington at its annual banquet at the Hotel Statler-Hilton, March 19. The award was presented to Dr. Stevens by Dr. Isadore Rodis, who described the recipient as one who has "maintained the highest standards of a scholar, administrator, teacher, research worker, and above all, as a good doctor." Dr. Rodis was chairman of the Merit Award Committee.

Dr. Dorothy A. Starr has been appointed Chief of the Adult Mental Health Division, Bureau of Mental Health of the District of Columbia.

Dr. Starr served as Medical Officer in the United States Navy from 1950 to 1954, following her graduation from the State University of New York College of Medicine. After serving a residency in psychiatry at St. Elizabeths Hospital, 1954 to 1956, she continued on the staff as Medical Officer in Psychiatry.

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Information and Education, through which requests for speakers for lay groups, including radio programs, can be filled.

Date	*Speaker*	*Subject or Title*	*Organization*
April 12	Dr. Max J. Fischer	Complications of the Common Cold	Inga's Angle, WRC-TV
April 15	Dr. Gordon R. MacDonald	Kidney Stones	Inga's Angle, WRC-TV
April 19	Dr. William G. Ballinger	Scalp Problems	Inga's Angle, WRC-TV
April 20	Dr. Julius Schreiber	Dealing with Some Emotional Problems in Marriage and Family Life	Fellowcraft Society of Gompers' Masonic Lodge
April 22	Dr. C. Willard Camalier, Jr.	Health Insurance Plans	Inga's Angle, WRC-TV
April 26	Dr. Leonard T. Peterson	"Doctor, My Feet Are Killing Me"	Inga's Angle, WRC-TV
April 29	Dr. Oscar B. Hunter, Jr.	Leukemia	Inga's Angle, WRC-TV
May 3	Dr. Petrena Abbe Shea	Discussing Facts of Life with Our Children	Inga's Angle, WRC-TV
May 6	Dr. Milton C. Cobey	"My Aching Back"	Inga's Angle, WRC-TV
May 7	Dr. Jean H. Menetrez	Occupational Adjustment	Mental Health Conference-D. C. Association for Mental Health
	Dr. John D. Schultz, panelist	New Trends in Mental Care	
	Dr. Preston A. McLendon	Normal Children Have Problems, Too	
	Dr. Z. M. Lebensohn	Practicing the 3 A's of Mental Health: Acceptance—Approval—Appreciation	
	Dr. W. Deaver Kehne	Job Pressures	
	Dr. Warren C. Johnson	Roots of Mental Illness	
May 10	Dr. George Tievsky	Radiation and Health	Inga's Angle, WRC-TV
May 11	Dr. Allan E. Walker	How Your Doctor Can Improve Your Hearing	Washington Hearing Society
May 13	Dr. Hugh G. Clark	Mentally Ill Children	Inga's Angle, WRC-TV

Drs. J. Keith Cromer and Theodore Winship were presented honorary certificates of membership in the St. George Society at the April 11 meeting of the group at Georgetown University.

Dr. Cromer is Chairman of the Committee on Cancer Control of the D. C. Medical Society, Chairman of the Professional Education Committee of the D. C. Division of he American Cancer Society, and Chief of Gynecology at the Washington Hospital Center. Dr. Winship is Surgical Pathologist at the Washington Hospital Center. Both he and Dr. Cromer are members of the Executive Committee of the Washington Cancer Society.

The St. George Society is comprised of students from the three medical schools who are interested in cancer control. The certificates were presented by Mr. Monroe Dowling, Jr., a senior medical student at Howard University and President of the Society.

Dr. Harry I. Martin, Assistant Professor of Obstetrics and Gynecology, **and Dr. W. Lester Henry, Jr.,** Vice Dean of the College of Medicine, both on the faculty of Howard University, were awarded certificates for "outstanding service and achievement" from the Student Council of the

College on April 29. Both doctors are Active members of the D. C. Medical Society.

Dr. Robert S. Jason, Dean of the College of Medicine, presented the awards. Principal speaker at the dinner was Secretary Arthur A. Flemming, of the Department of Health, Education, and Welfare.

A memorial plaque honoring the late **Dr. Linn Fenimore Cooper** was unveiled in a special ceremony at the Washington Home for Incurables on May 5. He was Medical Director of the Home from 1938 to 1941. The plaque reads as follows: "In grateful memory of Dr. Linn Fenimore Cooper, from 1934–1959 Medical Director, advisor and generous donor to The Washington Home for Incurables. His dedication to the interests of the Home, and his wise and cheerful counsel were in large measure responsible for its growth and farseeing policies."

D. C. ATTENDANTS AT TRAINING COURSE ON HEALTH MOBILIZATION

Of the District of Columbia residents who attended the first training course of the Division of Health Mobilization, April 18–23, were two members of the District Medical Society: Dr. John R. Pate, Director, Bureau of Disease Control, Department of Public Health, and Dr. James Q. Gant, Jr., dermatologist.

They are included in the picture above, with (front row, left to right): George O. Pierce, Assistant Chief, Bureau of Food and Public Health Engineering, Department of Public Health; Miss Jayne A. Hofmann and Miss Barbara A. Peterson, nursing instructors at the Washington Hospital Center; Mrs. Dolores K. Cohen, Assistant to Director of Nursing Services, D. C. Chapter, American Red Cross, and Dr. Pate.

Back row (left to right): Douglas H. McAllister, Division of Health Mobilization Program representative, assigned to D. C. Health Department; Dr. John W. Walsh, liaison officer to the Department of Health, Education, and Welfare from the Veterans Administration; Dr. Gant; and Dr. George Moore, Chief of Health Mobilization Service, Public Health Service Region III, which includes the District of Columbia.

Dr. Cooper in recent years contributed his services to the mission fields in Africa and Borneo. He died November 13, 1959, in Sarawak.

Dr. John R. Pate, Director, Bureau of Disease Control, D. C. Department of Health, **and Dr. James Q. Gant, Jr.,** Washington dermatologist, were members of a class of 104 private physicians, dentists, nurses, veterinarians, and health department or service personnel who were given certificates for successful completion of the first training course conducted by the Division of Health Mobilization, U. S. Public Health Service. Participants were from 15 states and the District of Columbia.

The course, entitled "Medical Aspects of Health Mobilization," was held, April 18–23, at the Eastern Instructor Training Center of the Office of Civil and Defense Mobilization in Brooklyn, N. Y.

Dr. Thelma Dunn was recently elected Vice President and President-elect of the American Association for Cancer Research, to take office as President in April, 1961.

Dr. Dunn was cited among the "Women of the Year" in 1959 by the American Medical Women's Association. She was also honored last year as "Woman of the Year" by the Women's Medical Society of D. C. Dr. Dunn is the wife of Dr. W. LeRoy Dunn, immediate Past President of the District Medical Society.

Dr. James M. Moss, of Alexandria, Associate member of the D. C. Medical Society, was elected Vice President of the Virginia Society of Internal Medicine at its third annual meeting in Charlottesville, Va., February 20.

Dr. Joseph A. Bailey, of the Washington Clinic, was a guest of the Department of Defense on a Nation-wide tour which included a visit to the Second Marine Division at Lejeune, N. C., May 4. He was one of a group of 64 who visited defense installations as part of the 30th Joint Civilian Orientation Conference. This demonstration was part of a program by which the Defense Department seeks to promote a better understanding of the U. S. defense program.

Dr. Henry H. Balch was recently elected to membership in the American Surgical Association. He is Associate Professor of Surgery at Georgetown University School of Medicine.

Dr. Hugh G. Clark is the new President of the D. C. Chapter of the National Association for Mentally Ill Children, Inc., an affiliate of the national group, which is located at 171 Madison Avenue, New York 16, N. Y. The Professional Advisory Council to the D. C. Chapter includes three other members of the District Medical Society, Drs. Preston A. McLendon, William F. Burdick, and Harold M. Hobart.

Dr. Oscar B. Hunter, Jr., Director of the Hunter Memorial Laboratory, has been reëlected for a 3-year term to the Metropolitan Washington Board of Trade.

Dr. Arnold Gould is serving on the Board of Trustees of the Montgomery County Jewish Community Center of Chevy Chase, Md.

MEMBERSHIP

The following applicants for membership were duly elected to membership by the Executive Board, April 25, 1960, in accord with Chapter II, Article VIII, of the Constitution and By-laws of the Society.

Active Members

Irwin H. Ardam, 11002 Nicholas Drive, Silver Spring, Md.
Boyd L. Burris, 2403 Rose Hill Drive, Alexandria, Va.
James H. P. Garnett, 1835 Eye Street, N.W.
Alfred O. Ludwig, 2500 Q Street, N.W.
Eleanor L. Makel, 2111 Varnum Street, N.E.
John B. Meyer, 2810 Parkway, Cheverly, Md.
Albert J. Miele, 2574 B. Holman Avenue, Silver Spring, Md.
Harold Heacock Orvis, George Washington University Hospital
William A. Weiss, D. C. General Hospital

Associate Members

Theodore R. Austin, Walter Reed Medical Center
Arthur W. Haelig, 1102 Manor Road, Falls Church, Va.
Chi-Chin Huang, 8703 Bradford Road, Silver Spring, Md.

Resident-Intern Member

Gilbert R. Clark, 140 Ames Road, Silver Spring, Md.

The following applicants for membership will be voted on at the meeting of the Executive Board in August, 1960.

For Active Membership

Modestino G. Criscitiello, Harvard University—1948
David J. Owens, Medical College of South Carolina—1947
Richard A. Wilson, Howard University—1944

For Resident-Intern Membership

William H. Dickson, University of Glasgow (Scotland)—1955
Mohammad H. Emami, University of Tehran (Iran)—1952

Recent changes in membership status:

Active to Associate

George L. Ball
Joseph B. Davis
William H. Kessenich
Joseph Kreiselman
Bernard E. Nunez
Francis X. Richardson
James G. Shea
S. Ross Taggart
Charles H. Wolohon

Active to Affiliate

Marcus P. Coumas

Resigned

Active

Herbert G. Brandes
Geneva E. Goodrich
Althea Kessler

Associate

Martin D. Delaney, Jr.
Arden Freer
George A. Gray
Robert A. Hare
Wilkins R. Manning
William Meyer
Irwin L. V. Norman
Norman C. Shoemaker

Resident-Intern

Abraham I. Gimble

EDMUND BARRY, M.D.
(1864–1960)

Dr. Edmund Barry, a Life member of the Medical Society of the District of Columbia since 1939, died, April 10, 1960, at Georgetown University Hospital at the age of 95 years. He lived at 1844 Columbia Road, N.W.

Dr. Barry was born in Washington, D. C., June 22, 1864, to John N. and Sarah Palmer Barry. He received his medical degree from Columbian (now George Washington) University in 1891. He enrolled for postgraduate study at New York Postgraduate Medical School in 1896.

Dr. Barry served as a medical officer aboard the U. S. Coast and Geodetic Survey Steamer *Bache* from 1891 to 1892. The following four years he was affiliated with the United States Indian Service. He was Acting Assistant Surgeon of the United States Army from 1898 to 1904 during the Spanish-American War and the Philippine Insurrection. He practiced in the District of Columbia from 1892.

He was a member of the D. C. Board of Police and Fire Surgeons from 1905 to 1914. During World War I he was a member of the Board of Examiners.

He was elected to membership in the Medical Association of the District of Columbia in 1897 and reëlected in 1905. He was a member of the American Medical Association and the George Washington University Medical Society. He was a vestryman of St. Margaret's Episcopal Church and a member of the National Cathedral Association and the Lafayette Masonic Lodge.

Dr. Barry retired from practice a number of years ago. His wife, Mrs. Henrietta McF. Barry, survives him, together with a brother, Harry Barry, of Detroit, Michigan.

WILLIAM MEYER, M.D.
(1891–1960)

Dr. William Meyer, general practitioner in Herndon, Virginia, for 36 years, died suddenly, April 5, 1960, at Arlington Hospital. His home was at 512 Monroe Street, Herndon.

Dr. Meyer was born in Enfield, North Carolina, July 7, 1891. He graduated from the Medical College of Viriginia at Richmond in 1918 and served his internship at Johnston-Willis Hospital in Richmond. He served in the Army Medical Corps during World War I.

He was affiliated with the Medical Society of the District of Columbia as an Associate member from 1939 until early this year, when he resigned. He was a member of the American Medical Association, the Medical Society of Virginia, twice President of the Fairfax County Medical Society, and an Associate member of the Arlington County Medical Society.

Prominent in civic and Masonic activities in Herndon, Dr. Meyer was a 33rd degree Mason in the Scottish Rite and a Past Potentate of the Kena Shrine Temple in Alexandria. He was a director of the Alexandria Court of the Royal Order of Jesters of the Kena Shrine Temple and a Past Patron of the Herndon Chapter, Order of the Eastern Star. He was a member of the Tall Cedars of Lebanon and a member of the York Rite Masons. He was a Past President of the town's Rotary Club and a member of its American Legion Post. He served for two terms on the Town Council and had been a director of the Citizens' National Bank.

Surviving him are his wife, Mrs. Lottie Roney Meyer; two sisters, Mrs. Leo Sultan and Mrs. Frank Hortwitz, of Enfield, N.C.; and four brothers, Edward and Otto Meyer, of Enfield, N.C., Carl Meyer of Elm City, N.C., and Sigmund Meyer of Durham, N.C.

Cholecystography and Cholangiography —Bickham

(*Continued from page 318*)

11. Bickham, C. E., Jr., Wissler, J. E., Schumacher, F. V., and Miele, A. J.: Clinical study of tri-iodo butyrlamine ethylacrylic acid (Orabilex) for cholecystography and cholangiography, an exhibit presented at the Scientific Section of the Annual Meeting of the Southern Medical Association in New Orleans, November 3–6, 1958.
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Effect of X-ray Procedures on the Gonads—McDonald

(*Continued from page 322*)

X-ray diagnosis. X-ray has proved that its benefits far outweigh its imperfections. Judiciously used, this relatively new diagnostic and therapeutic tool can be made to work effectively in our constant battle against our real enemy—disease.

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Treatment of Acute Alcoholism—Mitchell and Creswell

(*Continued from page 325*)

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On the Lighter Side—Kadan

(*Continued from page 364*)

Specialization can become confusing to a patient, as witness the man who wrote his doctor the following note: "Dear Doctor: When I cough my prostate hurts. Should I go see a urologist or a lung specialist?"

Overheard in a waiting room: "Dr. Jones isn't my regular doctor. I'm here only because my doctor fell off his secretary and sprained his shoulder." . . . "My doctor is a good diagnostician. He can always put his finger right on it after only a few questions."

Few things in life are more satisfying than parking on what's left of the other fellow's dime.

Only the rich can be eccentric. The poor have to be satisfied with being just plain nuts.

Chief Screeching Train Whistle petitioned the court to give him a short name.

"What name would you like to have?" the Judge asked the Indian.

"Toots, your Honor."

J. Earl Kadan, M.D.

CLINICAL REMISSION IN A "PROBLEM" ARTHRITIC

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Book Reviews

Observations on Direct Analysis—The Therapeutic Technique of Dr. John N. Rosen. MORRIS W. BRODY, M.D., with Forewords by John N. Rosen, M.D., and O. Spurgeon English, M.D. Price, $2.95. Pp. 104. New York: Vantage, 1959.

This rather brief volume of 104 pages is a review of Dr. Rosen's technic in therapy with deeply disturbed and regressed psychotics. The critique is very direct and represents a couple of years of study by Dr. Brody, who is a practicing psychoanalyst in Philadelphia and is associated with the Temple University School of Medicine.

Dr. Rosen has developed a specialized method of dealing with psychotics which is unique to him and his success has not often been duplicated by others. This controversial method of treatment has never been analyzed fully. Dr. Brody is an impartial, trained observer who has attempted to give his psychoanalytic understanding to this method of treatment.

Direct analysis accomplishes what was once considered impossible; it adapts a psychological approach to the treatment of psychotics, particularly schizophrenics. Dr. Brody feels that "the task is to help the patient feel less fear of and guilt about the unconscious, forbidden impulse. This fear and guilt is displaced elsewhere and the patient awakens from his psychosis."

Dr. Rosen feels that "psychosis in its manifest content is a nightmare in which the forbidden wishes are so well disguised that the psychotic does not awaken. Unmask the latent meaning of the illness and the patient will emerge from his sickness." He also likens psychosis to an untreated cold that has gone on into pneumonia. He feels the pneumonia can be treated often more dramatically and successfully than the cold (neurosis).

In this treatment the patient is made to feel guilty with very direct interpretations, often of a basic nature. The treatment is hitting, dramatic, and often sudden in impact. Dr. Rosen has had many personal successes.

The book itself is the first of a series of research reports on direct analysis. It is a valuable discussion with good case material, though loosely edited and condensed.

RANDOLPH A. FRANK, M.D.

Clinical Obstetrics and Gynecology. A Quarterly Book Series. Vol. 2, No. 4. Cesarean Section, edited by EDWIN J. DECOSTA, M.D. Advances in Gynecologic Surgery, edited by S. B. GUSBERG, M.D. Price, $18.00 subscription for 4 consecutive numbers. Pp. 937–1228. New York: Hoeber-Harper, December 1959.

The portion of the text pertaining to Cesarean Section consists of 111 pages with 42 illustrations. A number of guest authors have combined their literary talents to present a lucid and rather comprehensive symposium on virtually every aspect of the cesarean operation. Indications, technics, anesthesia, morbidity, mortality, the legal aspects of postmortem section, and the rights of the unborn child are discussed in the light of the most recent obtainable information.

The Symposium on Advances in Gynecologic Surgery contains 144 pages and 58 illustrations and deals with the surgical treatment of congenital anomalies, infertility, abortion, endometriosis, a variety of vaginal operations, radiotherapeutic operations, and pelvic exenteration. These procedures are thoroughly discussed with special reference to indications, pre- and postoperative care, and operative technics.

This edition represents an excellent reference source for these aspects of obstetrics and gynecology. It would be of particular interest to the obstetric and gynecologic resident and specialist.

EARL D. NESLEN, M.D.

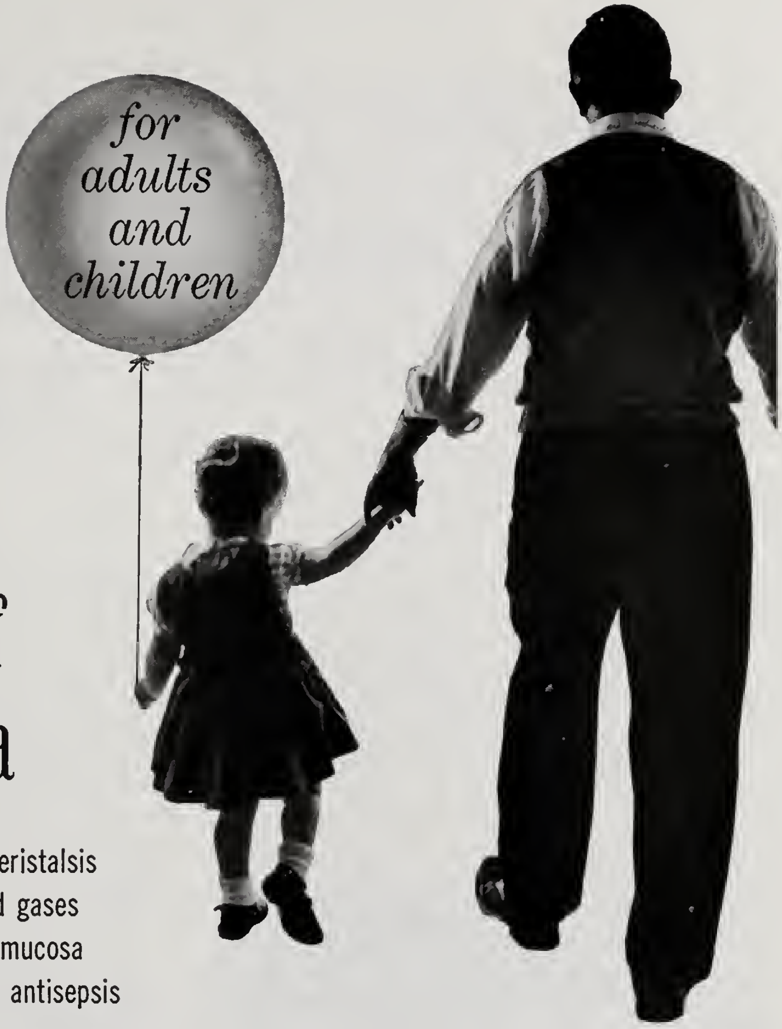
Clinical Auscultation of the Heart, 2nd ed. SAMUEL A. LEVINE, M.D., SC. D. (Hon.), F.A.C.P., AND W. PROCTOR HARVEY, M.D. Price, $11.00. Pp. 657, with 660 illustrations. Philadelphia: Saunders, 1959.

This is a book, the use of which may be approached in two ways, either as a text for the serious student, with the book being read continuately and annotated and thoroughly studied, or as a reference book in which one may look up specific problems, such as arrhythmias of different kinds or the auscultatory findings in congenital heart disease. The latter is perhaps the best and most lasting way to gain benefit from this book. There is rather a surfeit of riches in any attempt to study this book from cover to cover.

As compared with the first edition, much material on congenital heart disease has been added as well as material occasioned by the newer understanding of cardiac dynamics. The illustrations are excellent, the book being replete with phonocardiographic tracings, electrocardiograms, and diagrams. These are very well correlated with the text, and, in general, one sees the picture of the sounds on the page of or the page opposite the description in the text.

This book is of tremendous interest to any physician who ever puts a stethoscope in his ears. It is of course of special interest to those concerned primarily with the diagnosis and treatment of heart disease; it is highly recommended for medical students, physicians in general, internists, and cardiologists.

(Continued on page 50)



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Book Reviews

(*Continued from page 44*)

All of us can learn a great deal from it. Drs. Levine and Harvey are to be congratulated on the production of a superior work and one which will undoubtedly become as much of a classic as the first edition did.

Jason Geiger, M.D.

Your Heart: A Handbook for Laymen. H. M. Marvin, M.D. Price, $4.50. Pp. 335. Garden City, N. Y.: Doubleday, 1960.

The author of this book has done a very good job of covering an extremely complex subject. The style is simple and direct, easy to understand by lay people, for whom this book is primarily intended. He has covered the heart as far as anatomy, physiology and pathology are concerned. He has discussed practically all aspects of heart disease. Every chapter is a separate entity and easy to review. This is an advantage because the layman will have to re-read the chapters as he goes along in order to grasp the ideas that are new to him.

This book should be read by both doctors and laymen. They can both benefit by Dr. Marvin's vast experience in the field of cardiology, and they will also enjoy the tidbits of literature, poetry and Greek mythology scattered throughout the book. It is important for doctors to have this book in their library because they will be better able to understand their patients' problems and to answer the questions their patients put to them. It has been quite a treat to get acquainted with the author through his book and to get to know his warm personality, keen intellect, and sincere compassion toward patients who suffer from cardiac diseases.

Leslie Upton, M.D.

Mosquitoes of Medical Importance. Agriculture Handbook No. 152, Agricultural Research Service, U. S. Department of Agriculture. Price, buckram, $2.50. Pp. 158. Washington 25, D. C.: Superintendent of Documents, U. S. Government Printing Office, July 1959.

This handbook, prepared by two entomologists, Richard H. Foote and David R. Cook, in the Entomology Research Division of the Agricultural Research Service, is an excellent reference book. The text is arranged in 3 sections. The first section briefly describes diseases for which mosquitoes act as vectors. This section is purposely brief and obviously acts simply as an introduction. The second section is the longest and most important part of the book. Throughout this section are detailed drawings of mosquitoes arranged by geographical distribution. In addition, the significance of mosquito-borne diseases in specific geographic locations is discussed. The third section is devoted to a further discussion of the medically important mosquito species.

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This arrangement, combined with a clear table of contents and very carefully prepared index, makes this handbook a very useful reference book. The drawings are clear and should make for easy identification of the insects. Public Health personnel and physicians in the Armed Forces throughout the world will find it extremely valuable and easily understandable. It is also an important adjunct to a reference library concerned with infectious diseases. Medical students may find the drawings useful when studying tropical medicine.

The authors are to be commended for having compended this material in such a useful manner.

Ruth L. Kirschstein, M.D.

The Teen-Age Years—A Medical Guide for Young People and Their Parents. Arthur Roth, M.D. Price, $3.95. Pp. 288. Garden City, N. Y.: Doubleday, 1960.

Dr. Roth has presented a medical guide which will be more accepted by parents than by their children.

This book as a guide is well written for the purpose of showing that marked differences in height, weight, development of secondary sex characteristics, and other puberty changes may all be within the normal range.

The problems that adolescents face in regard to acne, orthopedic problems, ear and eye problems, handicaps of various types, and mental health are outlined to give the reader a gross idea of the various situations.

The author has tried to emphasize, by telling his experiences with teen-agers and their parents, that the same rules cannot be applied exactly the same way to every teen-ager.

The chapters on contagious diseases, respiratory infections, and function of the heart are described in the light of their particular effect on the adolescent.

Milton M. Greenberg, M.D.

MEDICAL ANNALS
of the
DISTRICT OF COLUMBIA

VOLUME XXIX *July*, 1960 NUMBER 7

THROMBOSIS OF THE INTERNAL CAROTID ARTERY IN THE NECK

Surgical Results in Seventeen Cases

JOHN P. GALLAGHER, M.D., F.A.C.S.
Clinical Associate Professor of Neurosurgery, Georgetown University School of Medicine

THROMBOTIC occlusion of the internal carotid artery in the neck is now recognized as a frequent cause of hemiplegia or "stroke." In the past the onset of sudden paralysis in a middle-aged or elderly individual commonly has been ascribed to thrombosis of one of the intracerebral vessels, such as the middle cerebral artery. The possibility that such a stroke might be caused by obstruction in the internal carotid artery largely has been ignored.

At Georgetown University Hospital during the years 1955 to 1958 inclusive 35 patients were encountered with occlusion of the internal carotid artery. In all cases this diagnosis was established by carotid angiography (figure 1). Seventeen of these patients were found to be suitable candidates for surgical removal of the arterial obstruction. The technic of thromboendarterectomy was used in all cases.

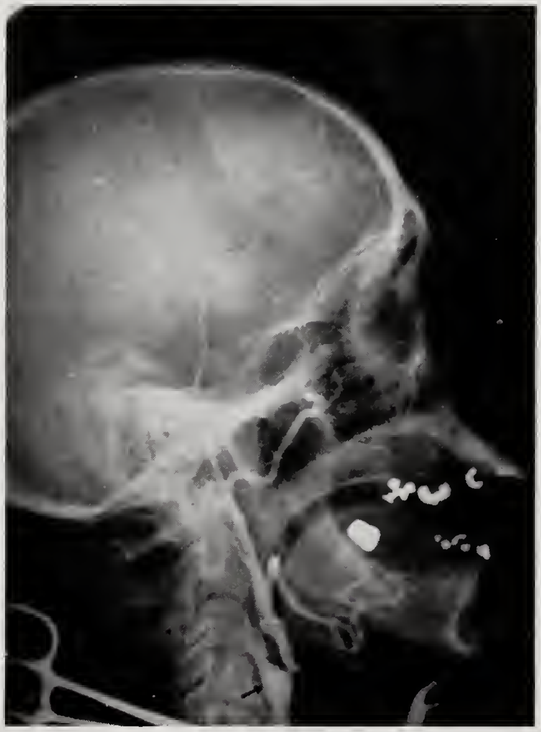

FIG. 1. Carotid angiogram showing (arrow) dilatation of carotid bulb, non-filling of internal carotid artery, and normal filling of external carotid artery.

CLINICAL FEATURES

The youngest patient in the surgical series of 17 cases was 29 years old and the oldest 71 years. In the age group of 20–39 years there were 2 patients; in the group 40–59 years, 9; and in the group 60–71 years, 6. Eleven males and 6 females were operated upon. Sixteen patients were white and the remaining 1 was a Negro. The left internal carotid was thrombosed in 15 instances, and in 2 of these the carotid on the right side was partially obstructed also. In the remaining 2 cases the right internal carotid alone was occluded.

The clinical onset in 9 patients was sudden and characteristically stroke-like, and in the other 8 the hemiparesis came on slowly. In several of the 8 patients with a delayed onset the clinical story was that of the appearance of a transient minor paralysis first. This was followed later by several additional spells of paralysis, each a little more severe than the first, until finally a major and lasting hemiplegia appeared. The long period of symptoms in those patients with a slow onset is of some interest. Thus, 1 man, aged 56, had been complaining of recurrent attacks of weakness on the right side for 3 years. Another man, aged 53, developed a slow, progressive weakness of the right upper and lower extremities over a period of 4 months. Still another man, aged 62, experienced repeated attacks of aphasia and weakness of the right side for 1 month prior to surgery.

In the 15 patients with thrombosis of the left internal carotid, aphasia and hemiparesis or hemiplegia dominated the clinical picture. However, a severe disturbance in speech was present in only 8, while in the other 7 patients only fragments of speech disturbance were noted.

In addition to the paralysis, a Horner's syndrome on the side of the thrombosed carotid was found in 10 cases. In most instances the Horner's paralysis was partial and consisted only of a slight droop of the upper lid of the eye. In only a few was the complete syndrome of ptosis of the lid and miosis of the pupil present.

A total and permanent loss of vision in 1 eye, due to a vascular insufficiency in the ophthalmic branch of the internal carotid, occurred in 2 patients. Measurements of the intraocular arterial pressure before and after operation were carried out on only 3 patients. In 1 case these measurements showed a drop of pressure in the retinal artery before surgery of 30 per cent, in another case a drop of 40 per cent, and in the third case a reduction of 60 per cent. In all 3 patients the postoperative ophthalmodynamometric readings showed a return to normal. In 1 of these 3 a total loss of vision in 1 eye was present before carotid thrombo-endarterectomy, and although the arterial pressure in the retinal artery was restored to normal, no return of vision occurred.

Seven patients complained of shooting, neuralgic pains on one side of the head either at the time of the occlusion or at some period shortly before the thrombosis. These pains were referred to the temporal, occipital or frontal regions on the side of the vascular obstruction.

In all 17 patients a clinical note was made regarding palpation of the internal carotid pulsation in the neck. In only 4 cases was the examiner certain of a diminution or absence of pulsation of the internal carotid. In many instances the presence of adipose tissue around the neck made it difficult to satisfactorily feel for the carotid.

Hypertension was known to be present in 5 patients prior to the time of the carotid thrombosis.

Lumbar puncture was performed on 13 patients prior to operation. In 10 patients the pressure of the cerebrospinal fluid was normal. In 2 of the remaining patients the pressure was slightly elevated, and in the remaining patient it was moderately elevated. In 8 patients the spinal fluid protein estimation was normal, and in the other 5 the protein was slightly elevated. The highest protein was 90 mg. per 100 ml.

Because of the undesirability of delaying surgical treatment once the diagnosis was suspected or established, electroencephalography was performed on only 4 patients. In 1 case the test was normal, and in the remaining 3 the test showed mild changes in the cerebral hemisphere on the side involved by the arterial occlusion.

PATHOLOGIC FEATURES

In all of the 17 surgical patients the point of thrombotic obstruction occurred at the beginning of the internal carotid at the bifurcation of the common carotid artery or up inside the internal carotid within a distance of 1 cm. from the bifurcation. In several instances the obstruction at the mouth of the internal carotid extended across the bifurcation to occlude the external carotid as well. In all cases except 1 the pathologic process within the vessel was atherosclerotic in nature. The vessel walls were invaded by atheromatous and calcific changes to the degree that the lumen of the vessel was reduced to a pinhole. Usually a streak of fresh, purplish, adherent currant jelly clot was found filling the tiny opening in the artery. In all of the surgical cases the common carotid was exposed for a distance of at least 6 cm. and the external and internal vessels for a distance of about 4 cm. Above the point of obstruction in the internal carotid this vessel was found to be pale, collapsed, stringlike and pulseless. Just proximal to the obstruction the carotid was usually dilated to the extent of one and a third of its normal dimensions. The atheromatous plaque was found to involve the entire diameter of the vessel and on palpation was found to be stony hard. As a rule the atheromatous involvement proceeded along the artery for a distance of about 2 cm. In 1 case, however, the vessel was involved with arteriosclerotic changes for the entire distance of the surgical exposure, and efforts to reëstablish the circulation in this instance had to be abandoned. In the others, after the obstructed part of the artery was opened and the plaques and thrombus removed, long strings of fresh blood clot were generally found inside the collapsed part of the artery. These fresh clots usually could be removed by suction with a thin rigid tube inserted up into the distal parts of the vessel. An example of thrombotic occlusion of the internal carotid due to atherosclerosis is shown in figure 2. This specimen was recovered from a patient at autopsy in the nonsurgical group.

As mentioned above, 1 patient in the surgical series had carotid thrombosis which seemed to have occurred without preëxisting atherosclerosis. At operation the internal carotid artery in this patient, a 53-year-old white man, was found to be firm and discolored at one point. When the vessel was incised the wall of the artery was found to be free of atheromatous changes. The clot inside the artery was bullet-shaped, firm, adherent and about 2 cm. in length. Whether or not thrombosis in this case occurred because of inflammatory disease in the wall of the artery is not known.

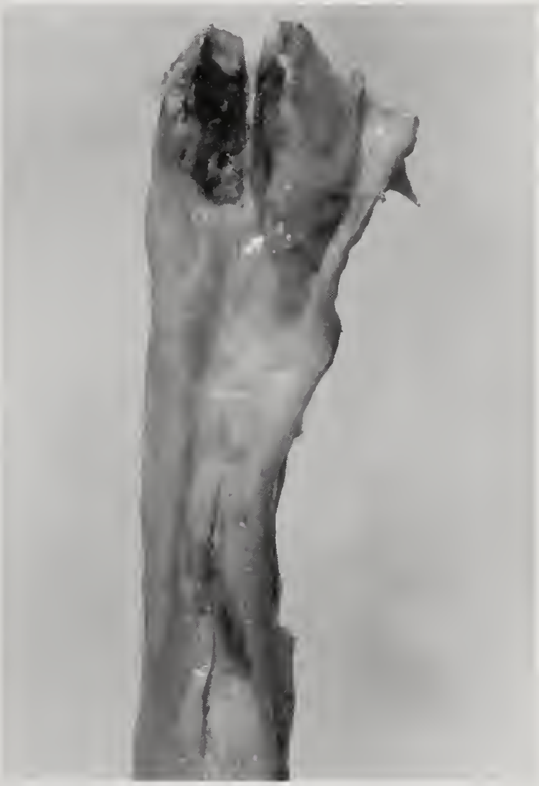

FIG. 2. Autopsy specimen of common carotid artery at bifurcation, showing (arrow) thrombosis of internal vessel.

One patient in the surgical series died on the day after thrombo-endarterectomy, and at autopsy the carotid was injected with saline and was found to be free of obstruction both at and beyond the surgical site. However, the brain showed irreversible and widespread softening of the frontal and temporal lobes on one side.

SURGICAL RESULTS

The surgical outcome in the group of 17 patients was as follows: In 9 patients excellent results were obtained. In these there was a complete reversal of their paralytic signs and a complete return of normal speech in those cases previously affected. In another 6 patients unqualifiedly poor results were achieved, and in these patients no useful return of function of the extremities was noticed and no useful return of speech ever regained. In another patient fair results were obtained in that useful speech was recovered, but the function of the extremities on the right side never returned fully to normal. However, he has returned to his former employment. The remaining patient in the surgical series died, and the autopsy findings have already been mentioned.

All of these patients were treated by thromboendarterectomy. This procedure involved incision of the artery over the point of obstruction and dissecting out the atheromatous material filling the interior of the vessel. Anticoagulation therapy was started a few hours after operation and was maintained for about 3 months after operation.

DISCUSSION

In the well educated manner of his day, J. Ramsey Hunt[1] was one of the first physicians to render a clear and complete account of the syndrome of thrombosis of the internal carotid artery. In 1914 he described both types of onset, the sudden and the delayed. In cases of sudden thrombosis he mentioned hemiplegia and aphasia and sometimes convulsive seizures. In the delayed cases he spoke of unilateral headache, vertigo, and changes in the size of 1 pupil as well as transient motor and sensory signs in the extremities. He also warned physicians that they should ever be on the alert for this clinical possibility in patients being examined for hemiplegia. In truth, there is almost nothing that clinicians now can add to Hunt's original description.

For a long time physicians have been aware that sudden obstruction of 1 internal carotid, by ligation for instance, did not always result in serious neurologic sequelae. When such obstruction did not result in neurologic dysfunction, it was assumed that an adequate vascular compensation was furnished by the other major vessels joining the circle of Willis. Thus, Pilz[2] in 1868 reported hemiplegia in only 10 per cent following 520 cases of carotid ligation. Later Makins,[3] DaCosta[4] and also Reid[5] reported an incidence of 20 to 30 per cent of cerebral complications after ligation of the common or the internal carotid. From this evidence alone there is little doubt that thrombosis of the internal carotid artery can occur in many individuals without producing permanent neurologic complications. This immediately calls to mind those patients occasionally encountered with transient neurologic disturbances attributed to cerebral vasospasm, "small strokes," and the like.

Moniz[6] in 1937 was the first to describe a convenient method for demonstrating carotid thrombosis using the technic of contrast carotid arteriography. Following the report of Moniz, attempts were made to treat such patients by surgical excision of the thrombosed arterial segment. Treatment by total arterial excision, although not accepted now, nevertheless afforded an excellent opportunity to review the pathologic process in the vessel responsible for the thrombosis. Thus, Galdston et al[7] reported the presence of atherosclerosis in 2 segments of vessels examined histologically by them. Andrell[8] in 3 of his cases showed 2 cases due to atherosclerosis and 1 due to thromboangiitis. Webster[9] and later Gurdjian[10] reported on the pathologic features of surgically excised arterial segments in carotid thrombosis and found atherosclerosis in all instances. Apparently, recanalization can occur in cases of carotid thrombosis due to atherosclerosis, and this feature was reported by Wolfe.[11]

The degree of cerebral impairment, when it does occur, varies from one case to another. The variable physical factors in an elastic tubular system such as the circle of Willis make it impossible to predict the pathologic consequences in the brain of sudden stoppage of blood through 1 internal carotid. However, Fisher[12] in an excellent paper reported the postmortem finding in the brain in 4 patients, and in all of his cases those parts of the brain supplied by the middle cerebral artery seemed to be affected the most. Wolfe[11] demonstrated cerebral atrophy in 1 patient with carotid thrombosis after pneumoencephalography. Later, Elvidge[13] reported atrophy of the homolateral cerebral hemisphere in half of his patients with carotid thrombosis following air studies. Demonstrable pathologic changes in the brain probably occur in the majority of patients with carotid thrombosis.

Almost all reports agree that men are affected with carotid thrombosis more frequently than women and that the left carotid is considerably more vulnerable than the right. Johnson[14] collected 107 reported cases up to 1951, including 6 of his own, and there were 87 males and 20 females in that series. In a report of 30 cases Gurdjian[10] mentions 26 males and 4 females, and in the same group the left carotid was affected in 19 cases and the right in 11 others. Sastrasin[15] presented 65 cases, 51 males and 14 females, and he found the left carotid thrombosed twice as frequently as the right. No adequate explanation has ever been offered for the predominance of this disorder in men or for the greater frequency of thrombosis in the left carotid.

So far as one can tell the shooting pains traveling up one side of the head so frequently present in carotid thrombosis seem to be due to stimulation of pain fibers in the sympathetic nerves enveloping the carotid tree. It is possible that such pain fibers do not exist around the intracerebral branches of the internal carotid, since headache of this type is not observed in cases of thrombosis of these vessels, the middle cerebral artery for instance.

The frequent presence of Horner's syndrome in carotid thrombosis seems to be due to stimulation of the sympathetic nerve fibers surrounding the carotid systems. A partial or complete Horner's paralysis has been noted in our general series (including the nonsurgical and the surgical groups) with thrombosis at almost every anatomic level of the internal carotid. It has even been observed at the terminal part of the carotid where this vessel joins the circle of Willis. O'Doherty and Green[16] in a report of 18 patients with proven carotid thrombosis found Horner's syndrome in 12 cases. When one of the terminal branches of the carotid system within the brain, such as the anterior or middle cerebral arteries, is thrombosed it is unusual to find Horner's syndrome.

The use of ocular dynamometrics in the diagnosis of carotid thrombosis seems to hold real promise. Whether a drop in systolic blood pressure in the homolateral eye occurs in all or nearly all cases of carotid thrombosis is not known. The finding of such a reduction in intraocular arterial pressure could be highly suggestive, but the absence of such reduction would not exclude the diagnosis of carotid thrombosis.

In this series excellent results were achieved after surgery in only 53 per cent. In those patients with poor surgical results such factors as irreversible brain changes, incomplete removal of the distal string of clot high up in the artery, and delay in surgical therapy were major impediments against recovery of function. It should be remembered that if the other branches contributing arterial blood to the circle of Willis are not adequate to compensate for the loss caused by the obstruction of 1 carotid, the resulting damage in the brain will be severe and enduring. Furthermore, the age of the patient as well as the interval between thrombosis and surgery influences the surgical results. Finally, it should not be forgotten that such physical factors as vessel diameter relationships at the circle of Willis, elastance of the arterial walls, rate of blood flow, and blood pressure impose additional influences which as yet remain a mystery.

(*Continued on page 425*)

AKINETON IN THE TREATMENT OF PARKINSONISM

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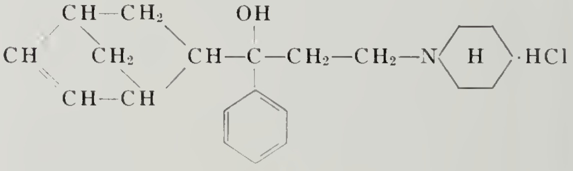
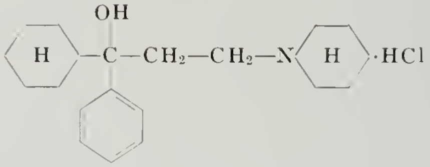
THE MEDICAL treatment of parkinsonism in the past with the natural belladonna alkaloids has been empiric, incomplete, and often unsatisfactory. This has led over the last 12 years to the introduction of a number of synthetic compounds of varying chemical structure. Some of these have been reported as superior to the older forms of belladonna, especially in regard to side-effects. One of these preparations, Akineton, has been under study and use in Europe for the last 5 years, and there have been encouraging reports of its effectiveness in a wide range of extrapyramidal disorders as well as in certain other forms of spasticity.

Drug therapy in parkinsonism as in other diseases should be based on certain secondary considerations as well as the simple results of treatment. These include ease of bio-assay, convenience of treatment, contraindications, toxicity, cost, and availability of treatment. In this study we have attempted to consider all these factors. Since parkinsonism is peculiar to humans, bio-assay as such is not available. Cost and availability of Akineton present no problem, since an oral preparation is available and the price is reasonable. The other factors are intimately bound to clinical response and we are reporting our experience over the past 3 years with this agent.

Pharmacology. Chemically the compound is 3-piperidino-1-phenyl-1-bicycloheptenyl-propanol-(1). The structural formula is quite similar to that of Artane (figure 1). It is a white powder with only slight water solubility.



AKINETON



ARTANE

FIG. 1. Structural formulae of Akineton and Artane.

Pharmacologic studies[1] indicate that Akineton has a strange nicotinolytic effect, an anticholinergic effect somewhat less than that of atropine, and a definite myospasmolytic effect. It is one-sixth as effective as atropine in producing dilatation of the pupil of the mouse and one-third as effective in overcoming salivation induced by pilocarpine.

Material and methods. Twenty-three patients were studied, 13 males and 10 females, ranging in age from 36 to 77, with the majority over 50. The symptoms of illness had been present for no less than several years in any case and in the majority for many years. Seventeen were classed as postencephaletic and 6 as arteriosclerotic. Two patients had never received any drug therapy for parkinsonism, while the remainder had taken various combinations of drugs for months or years, with inadequate relief and only occasional transient improvement. Unless an undesirable or intolerable side-effect intervened, the patients were treated for at least 3 months. Since patients with minimal parkinsonism seldom need treatment, they were not included in the study.

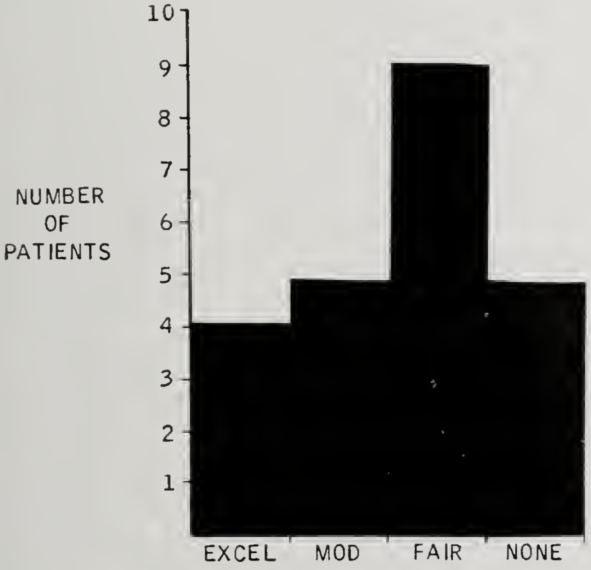


Fig. 2. Degree of improvement, total patients.

The patients were initially subjected to a neurologic examination with particular attention to rigidity, tremor and akinesia. They were then seen at intervals and examined by one of the investigators.

Akineton was administered to the patients in 2 mg. tablets. The initial dosage in 2 patients was 4 mg. daily and in the remainder 6 mg. daily. Total daily dosage per patient ranged from 4 mg. to 32 mg.

Results. Results were considered excellent when the drug enabled the patient to perform activities previously impossible. Moderate improvement included those whose performance improved, but not spectacularly. Improvement of slight degree was noted as fair, and no improvement as poor.

No patient could be classified as recovered while under treatment with Akineton. Four patients, however, showed great improvement. Five showed moderate improvement, and an additional 9 represented fair improvement. Five failed to improve. In no patient was the Parkinson's syndrome made worse (figure 2).

Age appeared to be a moderately important factor in the response to the drug. In the groups classified as excellent or moderately improved the mean age was 48, while in the groups classified fair or poor it was 62.

The etiologic type of parkinsonism appeared to be a somewhat more important factor since all 9 patients who showed excellent or moderate improvement were in the postencephalitic group (figure 3). Four patients in this group showed fair results, while another 4 showed no improvement. Of those patients classified as arteriosclerotic, 5 showed fair results and 1 no improvement (figure 4).

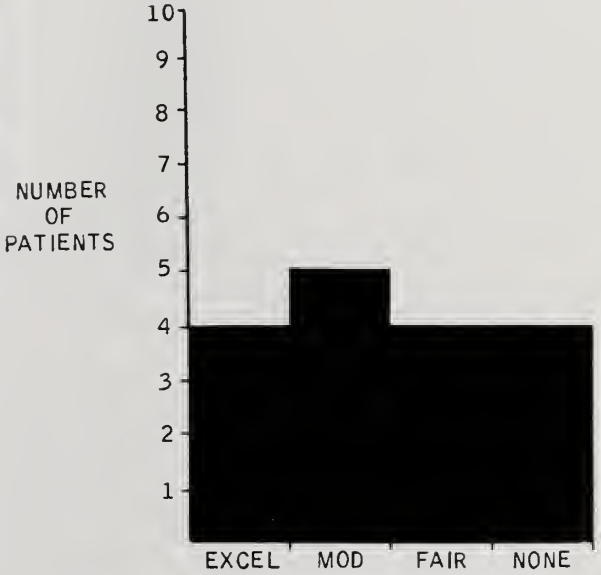


Fig. 3. Degree of improvement, postencephalitic group.

There was no significant improvement in relation to sex and race. The number of patients previously untreated was too small to be of any significance in considering their response as compared to those previously treated.

Toxicity. In general, the patients reported few side-effects of significance. Nausea and vomiting occurred in 1 patient but disappeared in several days and the patient showed an overall moderate improvement. Dry mouth occurred in 2 patients, 1 of whom had excellent results otherwise. The other patient who experienced serious dryness of the mouth also experienced dizziness, necessitating the discontinuance of the drug. None of the patients reported any serious blurring of vision. There were no signs of glaucoma, and ocular tension studies revealed no change in ocular pressure.[2] In 1 patient euphoria and confusion led to the discontinuance of Akineton, while in another severe tension caused the same end-result. These 3 patients were taking moderately large amounts of the drug (8 to 16 mg. per day). No untoward effect of Akineton on red and white blood count or liver and kidney function was noted.

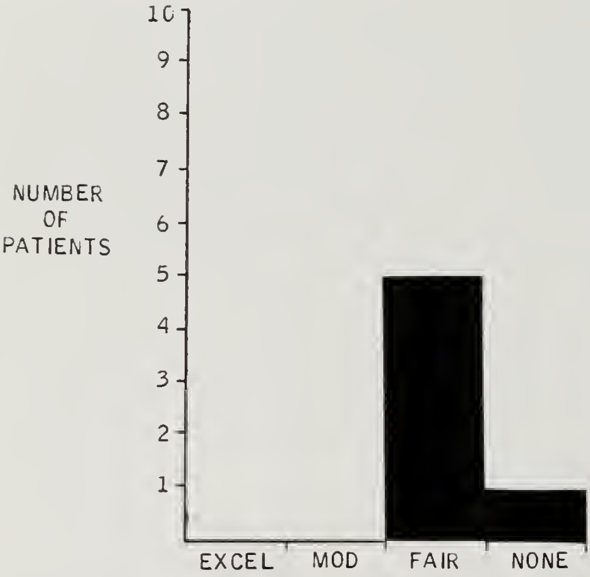


FIG. 4. Degree of improvement, arteriosclerotic group.

DISCUSSION

A number of papers have appeared in the German literature concerning the use of Akineton. The general tenor of them is that the drug is effective in the symptomatic treatment of all forms of parkinsonism, with akinesia and rigidity responding best. Brandt and Brandt[3] reported an extensive series of cases and noted that, while tremor was the least responsive symptom, relief was obtained to some extent in the majority of cases and that rigidity was markedly improved. Several authors[4, 5, 6] are even more enthusiastic in their evaluation, considering that all symptoms showed significant improvement. Drüen[4] also extended the use of the drug to other extrapyramidal and spastic syndromes wherein he considered the drug to be subjectively more effective than objective evidence would tend to support. All these investigators noted that generally there was an elevation of the mood of the patient, although there was also 1 report[7] of a frank psychosis occurring during the use of the drug and disappearing on its discontinuance. None of the investigators noted any ill effect on the peripheral blood count, bone marrow, or liver or kidney function.

The results in our series of cases tend to conform to a large extent to those of the European studies when those responding favorably are considered, although a significant proportion of our patients showed little or no improvement. When the drug was effective all symptoms improved, although, as could be expected, some responded to a greater degree than others. No consistent difference could be noted in our series in the response of rigidity and tremor. That mild to moderate signs and symptoms of atropinism and changes in personality were the most significant side-effects noted is not surprising.

SUMMARY

Twenty-three patients, all suffering from parkinsonism, either postencephalitic or arteriosclerotic in origin, were treated with a new preparation, Akineton. Akineton proved itself to be an effective agent in therapy, comparing favorably with previously tried medication. Toxic effects were generally minimal, presenting no severe problem.

(*Continued on page 425*)

REVERSE INTUSSUSCEPTION

Report of a Case

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THE CASE of reverse intussusception to be presented is interesting from the following points of view: It is an extremely rare operative finding. As such, it is usually a misdiagnosed surgical emergency, clarified during surgery. From the foregoing, it is evident that in this case the treatment was symptomatic prior to surgery and that the operation required superior technical skill in order to cope with many serious and unexpected turns. The case is interesting in its fortunate and successful result.

It has long been accepted that in every case of intussusception there is an apex which guides the invagination and progresses forward (Handfield-Jones and Porritt[1]). This apex is a preëxisting entity in most cases, caused by either a benign or malignant tumor, a chronic inflammatory process, hemorrhage in the intestinal wall, intestinal parasites, Meckel's diverticulum, etc.

The contemporary pathologic concept of intestinal obstruction regarding the cut-off of vessels and resorption of the putrefactive catabolic substances of the intestinal content gains full support in the case of intussusception (Sodeman[2]).

There are little data in the world literature regarding the retrograde or reverse intussusception. Wangensteen's monograph[3] mentions 106 publications about intussusception, but only 4 of them deal with the true retrograde type. Perhaps the rarity of this pathologic condition is the reason that even the newest textbooks do not present a clear and complete picture of its etiology and mechanism. Some of them describe it exclusively as a terminal and premortal phenomenon.[1]

Kausch in 1920 published his case of "sogenannte" ascending intussusception and collected 41 cases from the literature.[3] Akehurst[4] broadened that number to 103 in 1955. Wangensteen[3] admits that he has had no personal experience with this problem.

There are several articles in the Anglo-American literature describing retrograde intussusception of the small intestine in the area of gastroenterostomy after gastric resection, but these cases cannot be considered as true reverse intussusceptions because of the 3-way passage in this area.

In the majority of cases intussusception presents a well-developed picture of intestinal obstruction, so that X-ray examination is not essential to its diagnosis. Wangensteen[3] treats it as an "ancillary aid which may be of great value in atypical cases." This corresponds especially to the cases of reverse way.

Regarding the therapy of an intestinal intussusception, all others agree that it is a condition which requires immediate laparotomy. Further technical procedure depends upon the objective findings. In early cases the possibility exists of disinvagination. Cases have been reported with side-to-side anastomosis, by-passing the involved bowel; but in the case of developed necrosis, the only procedure which can promise any hope is resection. However, Handfield-Jones and Porritt[1] state: "The results are very bad." Perrin and Lindsay in 1921 reported their results of 12 resections with tube drainage with 12 deaths, 6 resections with the use of a Murphy button with 6 deaths, and 29 resections with colostomy and 20 deaths.[3]

REPORT OF CASE

M. E. P. (No. W7359-1959) was a 47-year-old white woman who was admitted to the Doctors Hospital on July 27, 1959 at 4:18 p.m. with the admitting diagnosis of "acute abdomen" to the service of Dr. H. Hertzberg. Her chief complaint was low abdominal pain of 2 days' duration. It began suddenly early in the morning and was accompanied by nausea and persistent vomiting, slight chills, and fever. The patient had eaten no food since the onset of the symptoms and was having diarrhea. The pain was dull and spreading more toward the left side. It had become worse during the past several hours. The patient had slept little for the past 48 hours. She had not had a similar complaint before. Appetite and diet were normal, and she had not required laxatives. There were no gastrointestinal complaints. The last menstrual period had been 6 months before. She had a daughter aged 13. Hemorrhoidectomy had been performed 3 years before.

Physical examination revealed a well-developed woman who was dehydrated, apprehensive, and in a state of objective abdominal pain. The blood pressure was 170/110, the temperature 99°F, and the heart rate 104. The lungs were normal. There were no abnormal heart sounds. The abdomen was slightly distended and tender in both lower quadrants without muscular rigidity. The examining house officer (Dr. Lee) marked on the history: "There is no mass palpable." The extremities were normal. The admitting impressions were left ovarian cyst (?), torsion (?), acute appendicitis (?), acute adnexitis (?).

The urine showed 2+ albumin, 2+ sugar, and pus. The white blood cells numbered 22,200 per cu. mm. of blood with 93 per cent neutrophiles. The hemoglobin was 15.1 Gm. and the hematocrit 49 per cent.

As a result of the history and laboratory findings the attending gynecologist requested a consultation with the general surgeon. Dr. Paul S. Putzki was consulted the same evening, and he noted in the history: "There is a nodular mass present in the left side of the abdomen that is somewhat tender. The mass may be the left kidney or the spleen. Intravenous urograms are indicated." He ordered intravenous fluids, repeated laboratory examinations, and intravenous pyelograms for the following morning.

The roentgenologist (Dr. Schneider) reported as follows: "Plain film of the urinary tract shows a large amount of opaque medication in a markedly dilated colon. The transverse colon is dilated up to 14 cm., and there are several large fluid levels. A small amount of barium is seen in the terminal ileum. This has the appearance of colonic obstruction. The site of the obstruction is not seen on these films, but it is believed to be in the region of the sigmoid. The kidney examination was not performed" (figure 1).

After the X-ray study 2 points were clarified: We were dealing with an intestinal obstruction, and there were still large amounts of barium in the colon and terminal ileum. Under further questioning the patient revealed that she had been admitted, studied, and discharged from another hospital 12 hours after the onset of the symptoms. Barium studies had been done and exploratory laparotomy suggested. However, the patient at this point requested transfer to Doctors Hospital, intending to request the attendance of her gynecologist.

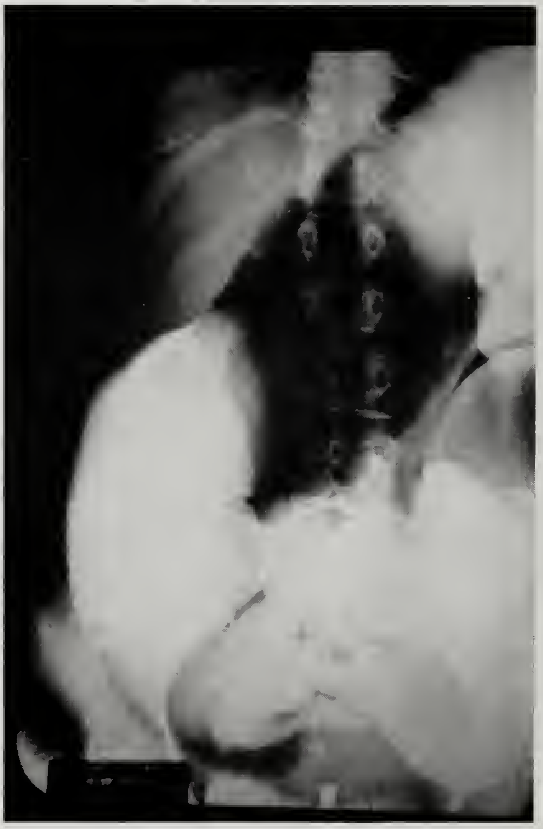

FIG. 1. Preoperative barium enema.

During the day the condition slowly deteriorated, the abdominal distention increased, and the signs of intestinal obstruction became more prominent. In spite of intravenous fluid medication, the use of a suction tube, etc., toward evening she presented a picture of severe intoxication.

On July 29, 1959 exploratory laparotomy was performed (Dr. Putzki and Dr. Vuitch). At that time the condition of the patient was very poor. She was judged by the anesthesiologist (Dr. Stubbs) as a group 4 risk and life emergency.

Medial and low midline incision was made. The distal portion of the sigmoid was found collapsed, and the proximal portion of the sigmoid was invaginated into the descending colon in a reverse way. The transverse colon was distended, and the intussuscepted colon was about 12 inches long, extending up to just short of the splenic flexure. The mesentery and blood vessels of the invaginated area were freed up, ligated and divided. Payr clamps were placed across the colon above and below the invagination. The diseased portion of the bowel was removed in toto (figure 2). A stab wound was made through the left rectus and the 2 ends of the colon were brought out through it. The upper, distended part of the colon was opened and evacuated into a pan and reclamped. The incision was closed in a routine manner. The clamp was removed from the upper part of the colon and a rectal tube inserted and sutured in place. The patient had a very low blood pressure and a rapid pulse rate while on the table and returned to the recovery room in fair condition. The operation lasted 58 minutes.

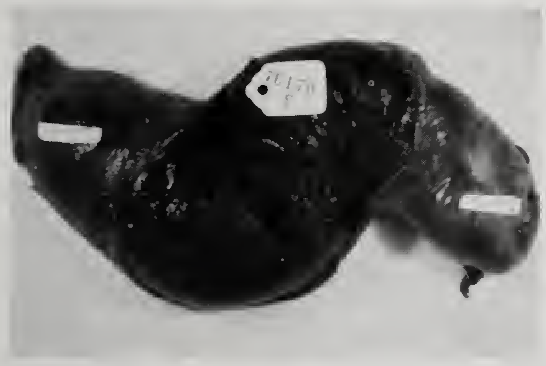

FIG. 2. Operative specimen, showing swollen outer coat and gangrenous inner layer.

The pathologic report was: "Villous adenomatous polyp of the sigmoid colon, reverse intussusception of the sigmoid colon due to the polyp, gangrene of the sigmoid colon due to the intussusception" (Dr. O. B. Hunter, Jr.). Grossly the whole affected colon measured 54 cm. in length, and the apex was represented by an ovoid, soft tumor mass, measuring 3.5 cm. in diameter. Microscopically the tumor was a sessile, villous polyp, and the wall of the intestine was in greater part necrotic.

The postoperative course was remarkably smooth and uneventful. The patient's temperature went only once higher then 101°F. Diuresis returned to normal very soon, and the general condition improved rapidly.

Three weeks later we were able to perform the closure of the colostomy despite the fact that this was only about half of the time usually accepted for this procedure. Loops of small bowel were adherent to the colostomy area. These were injured and sutured in 2 places during surgery. However, neither the temperature nor the pulse rate exceeded 100 postoperatively. The bowel movements soon became regular and strength was rapidly regained.

The patient was discharged on the eighteenth day after the second operation and seen several times in the office. She is in good health at the present time.

COMMENT

Perhaps the proper expression would be that our case was not misdiagnosed but rather incompletely diagnosed. One thing is definitely correct: The radiologist put us on the right track and conclusively instructed us about the diagnosis of intestinal obstruction. However, he made no suggestion about an invagination. The determination to operate was brought about by the patient's deteriorating condition. During the operation the real nature of the condition was recognized immediately. Although there was a benign polyp as the apex, the real mechanism of retrograde intussusception in this particular case is obscure and unexplainable. The operation was performed in a very short time by one of the most difficult and extensive technics. There was a remarkable resistance and stamina on the part of the patient. She coped with all difficult situations extremely well. Her morale was generally very good during the entire lengthy illness of approximately 6 weeks. Only average amounts of antibiotics were administered during both postoperative periods. Recovery seems to be complete and satisfactory.

SUMMARY

A case is reported of a middle-aged housewife who had an acute retrograde intussusception. The case was inaccurately and incompletely diagnosed preoperatively. Roentgenographic studies suggested an obstructive mass in the sigmoid. The deteriorating clinical picture necessitated emergency surgery. The skillful surgical technic and the patient's good physical condition brought about a successful recovery.

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(*Continued on page 426*)

TRACHEO-ESOPHAGEAL FISTULA AS AN ISOLATED EFFECT OF STEERING-WHEEL INJURY

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STEERING-WHEEL injuries have been increasing in incidence, and it seems very probable that they will continue to increase. It seems important, therefore, to draw attention to the fact that such a sudden compressing injury of the chest can, without penetrating the chest or fracturing a rib, produce a traumatic fistula between the trachea and the esophagus. Such a case was recently encountered, and a review of the literature yielded 9 other individual case reports of such isolated effects.[1-9] The first case reported was that of Vinson[1] in the year 1936. All of the 10 known cases have been in young males, the average age being 24.6 years.

Report of Case

N. J., a 14-year old colored boy, was admitted to Emergency Hospital, Washington, D. C., on July 15, 1956. While coasting rapidly downhill in a "soap-box derby" racer he had lost control of the vehicle and had struck a parked automobile. The racer was equipped with a steering column and wheel, so that the boy suffered the equivalent of the injury commonly sustained, when involved in a collision, by the driver of a full-sized automobile. Upon admission to the accident room of the hospital he was fully conscious. He complained of mid-thoracic and epigastric pain. When he swallowed saliva, the chest pain was aggravated. He vomited once, and the vomitus was noted to be blood-streaked. He later coughed up some bright blood. A small amount of air could be felt in the superficial tissues of the neck and of the chest wall. A chest roentgenogram did not reveal pneumothorax, rib fracture, or widening of the mediastinal shadow. The only detectable abnormality was a thin line of free air distributed along some of the fascial planes of the superior mediastinum and neck. A Levin nasogastric tube was passed without much difficulty, and the boy appeared to improve. This favorable progress was thought to rule out a frank rupture of the esophagus. An electrocardigram was normal. The nasogastric tube was removed the day following admission, and the effect of swallowing water was observed. He complained that the swallowing of this liquid "hurt" in his midchest, but he did not cough. He was allowed a liquid diet, and the characteristic, tell-tale "swallow-cough" of a tracheo-esophageal fistula was delayed in its appearance until the fourth hospital day. Thereafter it was easily demonstrable. On July 20, 1956 a lipiodol swallow revealed a portion of the oil leaking from the esophageal lumen into the tracheobronchial tree (figure 1). Bronchoscopy and esophagoscopy on July 25 confirmed the presence of a fistula. A small tear could be seen in the posterior wall of the trachea, just above and to the right of the carina. There was a corresponding opening in the anterior wall of the adjacent esophagus.

The patient was thereafter prepared for operation by nasogastric tube feedings, a blood transfusion, and intramuscular administration of antibiotics. The right hemithorax was explored transpleurally on July 30, 15 days following the injury which had produced the fistula. The azygos vein was divided. Even in the immediate neighborhood of the fistula, mediastinal reaction had largely subsided. Only a slight edema beneath the pleura lingered to mark the site of the fistulous communication between the trachea and esophagus. It was easy to dissect out the fistula, and divide it. The tracheal tear was 8 mm. long. Four silk sutures served to close it securely. The corresponding hole in the esophagus was the same length and was also easily closed. The tissues were not grossly inflamed or edematous, and they held sutures well. A broad-pedicled graft of endothoracic fascia and pleura was sutured into place, so that it came to lie between the tracheal and esophageal closures. The patient recovered uneventfully. By the ninth day he was eating a regular diet successfully. A barium swallow on September 11, 1956 showed an intact esophagus and clear lung fields (figure 2). He has remained well.

Discussion

Table 1 lists the clinical features, as recorded, of the 10 known cases of this particular type of tracheo-esophageal fistula. It is seen that pneumothorax is, surprisingly enough, an unusual manifestation of the injury. It was not present at any time during the clinical courses of 8 of the cases. The 2 exceptions were as follows: In case 6, in which the fistulous communication was very large (6 cm.), pneumothorax was at first absent but developed insidiously sometime during the third week following injury; in case 8, caused by a blast injury, pneumothorax appeared immediately, producing a total collapse of the right lung.

One or more ribs may be broken by the force of the chest injury, but such fractures have been absent surprisingly often. Holmes and Netterville,[9] in reporting case 9, make a point that fractures of the first rib, because of the severe force necessary to produce them, are prone to be associated with grave injuries to the thoracic viscera.

Subcutaneous emphysema, on the other hand, does appear to be a valuable early sign, suggesting the possibility of a fistula. Such a sign was prominent in cases 3, 6, 7, 8, and the case herein reported, referred to hereafter as case 10. Most often, the escape of air into the mediastinum has not continued; only once, in case 6, was the collection of air in the subcutaneous tissues progressive and alarming.

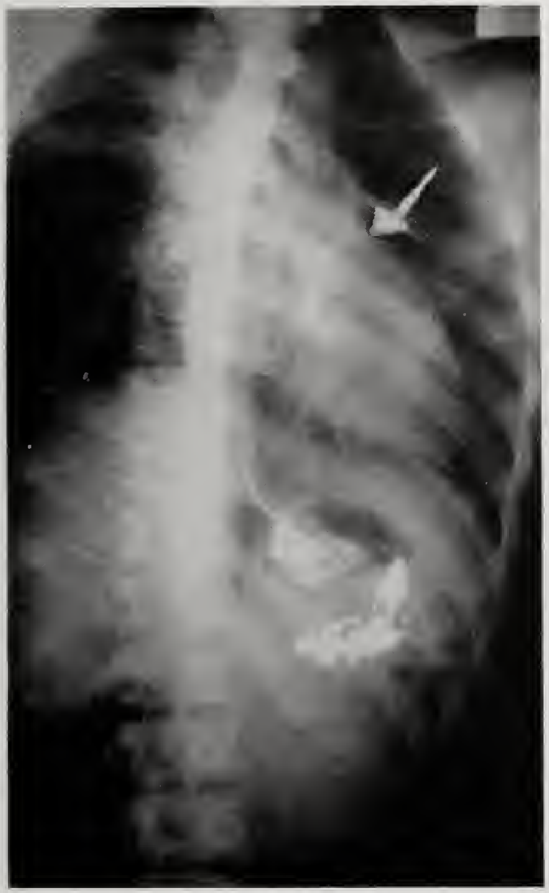

FIG. 1. Preoperative lipiodol swallow revealing contrast material entering bronchial tree via fistula.

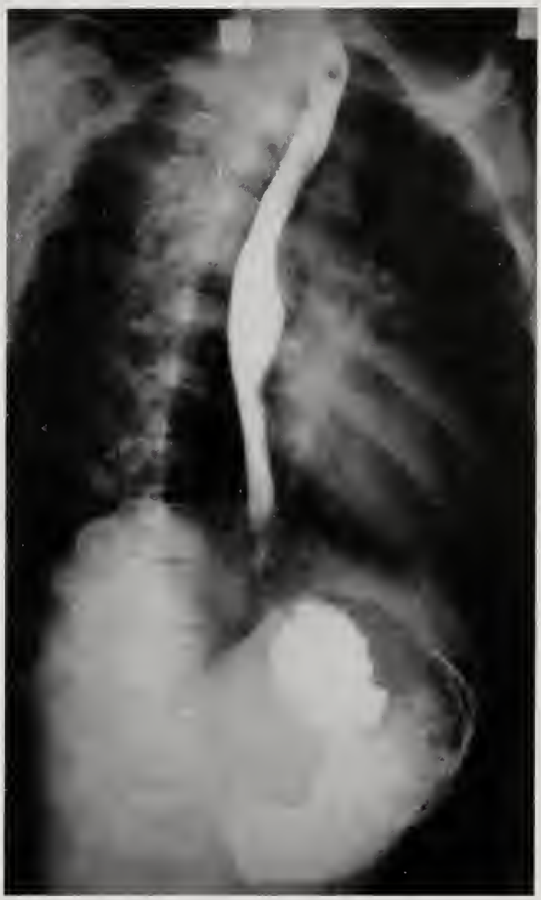

FIG. 2. Postoperative barium swallow revealing intact esophagus.

The presence of blood in both sputum and vomitus was noted in case 10. It would seem to

TABLE 1

Clinical Features of Ten Cases of Tracheo-esophageal Fistula Caused by External Injuries

Authors	Year	Sex	Age	History	Delay in Operative Closure	Pertinent Signs	Size of Fistula	Operations Performed	Postoperative Complications	Results
Vinson[1]	1936	M	29	Steering-wheel injury	Died early	Hemoptysis, 5-day delay "swallow cough"	3.7 cm.	None		Died
Piquet, Marchand, Muller, Decoulx[2]	1939	M	31	Crushed against wall	?	Hemoptysis, 3-day delay "swallow cough"	?	None		Alive 5 mos., fate unknown
Adams, Mabrey[3]	1946	M	19	Crushed by 700 lb. box	4 mos.	Subcutaneous emphysema, ecchymosis of glottis	"large"	Tracheotomy, right thoracotomy	None	Good
Albi, Gilchrist[4]	1949	M	29	Steering-wheel injury	3 mos., 11 days	Hemoptysis	1.0 cm.	Gastrostomy, right thoracotomy, drainage of empyema	Disruption, esophageal closure, empyema	Final recovery
Stephens, Ferrier[5]	1950	M	26	Truck accident	3 mos.	3-day delay "swallow cough"	3.0 cm.	Right thoracotomy	None	Good
DeBakey, Heaney[6]	1953	M	22	Steering-wheel injury	2½ mos.	Progressive subcutaneous emphysema, 3 wks. delay of left pneumothorax	6.0 cm.	Right thoracotomy	None	Good
Hughes, Fox[7]	1954	M	30	Auto accident	1 mo., 4 days	Subcutaneous emphysema, ecchymosis of glottis	?	Tracheotomy, right thoracotomy	None	Good
Storey, Volk, Marrangoni[8]	1955	M	23	Blast	4½ mos.	Subcutaneous emphysema, right pneumothorax, hemoptysis	1.5 cm.	Cervical drainage, cervical closure of fistula	None	Good
Holmes, Netterville[9]	1956	M	24	Steering-wheel injury	7 mos.	4-day delay "swallow cough," left lower lobe abscess 4 mos.	?	Right thoracotomy	None	Good
Nolan, Ashburn	1956	M	14	Equivalent of steering-wheel injury	14 days	Hematemesis, subcutaneous emphysema, 4-day delay "swallow cough"	0.8 cm.	Right thoracotomy	None	Good

be suggestive of a tear involving both the alimentary tract and the airway. Hemoptysis was recorded in 7 cases. Extravasation of blood beneath the mucosa from the site of injury was marked in cases 3 and 6. In these 2 patients submucosal ecchymosis extended up the trachea into the larynx, producing so much glottic edema and obstruction that tracheotomy became a life-saving necessity.

The "swallow-cough," so characteristic of a tracheo-esophageal fistula, is often delayed in its appearance for days following the original trauma. In only one-half of the 10 cases was such a characteristic association of swallowing and cough present immediately following the injury. In the remaining 5 cases 3 to 5 days elapsed before the typical cough appeared. Vinson,[1] in case 1, observed such a delay despite an injury which proved at autopsy to be 3.7 cm. long.

Nine of the fistulae were produced by sudden compressing injuries of the thorax. The only exception was that of case 8, which was caused by a blast of compressed air delivered to the patient's mouth. No matter how produced, the fistula is not usually lethal in itself. Only in case 1, which occurred in the pre-antibiotic era, did a fatality ensue. In that instance gangrenous mediastinitis led to a massive fatal hemorrhage on the eleventh day following the injury. In case 2, which also occurred in the pre-antibiotic era, the patient was recorded as being alive 5 months after he had been injured, but no further statement was made concerning the eventual outcome. The other 8 cases have occurred during the modern era of thoracic surgery and antibiotics. All 8 patients have undergone surgical closures of their fistulae, and all have recovered.

Spontaneous closure of the tracheo-esophageal fistula, or closure following endoscopic cauterization, had been anticipated in some of the recorded cases. The desired closure never materialized, despite expectant treatment extending for periods of 1 to 7 months. The size of the opening is usually such that chronicity is greatly favored. Indeed, the accumulated experience with these traumatic fistulae appears to indicate that it is proper to proceed with operative closure at an early stage. In case 4 gastrostomy was employed in an effort to promote spontaneous closure of the fistula, but it became chronic nevertheless. It was closed by operation after 3 months and 11 days of fruitless waiting. In case 9, in which expectant treatment was at first also employed, an abscess of the left upper lobe developed as a result of the constant contamination of the tracheobronchial tree by spillage from the esophageal lumen. In the light of this knowledge, it appears that operative intervention is proper as soon as infection in the lungs and mediastinum has been minimized. The patient is prepared for operation by nasogastric tube feedings, appropriate antibiotics, and restoration to normal of any hypoproteinemia or hypovolemia which might have developed.

Technical difficulties have not proved to be any great obstacle to success in closing these openings. Seven of the 8 patients had uncomplicated postoperative courses. The only exception was case 4, in which the tracheal closure remained intact but the esophageal closure broke down, producing an empyema. This empyema was drained openly, and the esophago-pleural-cutaneous fistula eventually closed, the patient recovering. In 7 patients the surgical approach was a transpleural one. The lone exception was case 8, the blast injury, in which the tracheo-esophageal fistula was higher than usual and was best approached transcervically. Technical difficulties in the management of ventilation during the operative procedure, despite the tears in the trachea (6.0 cm. long in case 6), did not prove too troublesome. The ordinary cuffed endotracheal tube appears to have occluded the tears well enough to permit good ventilatory management during transpleural repair of the fistulae.

SUMMARY

The tenth case of an isolated tracheo-esophageal fistula resulting from nonpenetrating sudden compression of the thorax has been recorded. It is surprising, but such a fistula may be the solitary lesion produced within the thorax by blunt injury. It should be suspected in the presence of subcutaneous emphysema, hemoptysis, bloody vomitus, and dysphagia. A typical

(*Continued on page 426*)

PARATHYROID TUMOR

Edited by

JOHN F. POTTER, M.D.

Assistant Professor of Surgery, Georgetown University School of Medicine

A 37-year-old white female was admitted to the Georgetown University Hospital for the first time with a history of recurrent episodes of renal colic since the age of 13 years. Many attacks of pyelonephritis had been noted and renal function had progressively deteriorated to the point that bilateral nephrostomy had been necessary 4 years prior to admission. The following year left nephrectomy had been performed.

Past history revealed a heredofamilial condition diagnosed as Charcot-Marie-Tooth disease. A high incidence of renal disease was reported in her family.

Laboratory tests to evaluate the patient's renal disease revealed an elevated serum calcium and a borderline to low serum phosphorus. Further studies indicated an increased rate of phosphate clearance and failure of shut-off of phosphate excretion after calcium infusion.

In view of these data strongly suggestive of hyperparathyroidism, the patient underwent exploration of the neck. Two parathyroid glands were identified and removed but neither showed either tumor or hyperplasia. Microscopically these glands were of normal appearance with a preponderance of clear cells. The patient recovered from this procedure and was discharged.

After an interval of 6 weeks she was readmitted for further evaluation. Physical examination revealed a well-nourished white woman in no distress. Vital signs were normal. A recent surgical scar was present in the neck. Atrophy of the thenar and hypothenar eminences, the interossei, and the distal musculature of the legs was noted.

Laboratory data revealed an elevated blood urea nitrogen ranging from 25 to 47 mg. per 100 ml. Blood uric acid was 10.5 mg. Serum calcium values averaged 13 mg. Serum phosphorus averaged 3.2 mg. Hypercalciuria and hyperphosphaturia were noted. The serum alkaline phosphatase was normal. The total protein was 7.9 Gm., with an A/G ratio of 3.3 to 4.6.

Steroid therapy was given a trial but did not reduce either serum or urinary calcium values. Phosphorus infusion produced a marked drop in serum calcium. Infusion of calcium did not shut off parathyroid function as noted by persistent phosphaturia.

The clinical impression was persistent hyperparathyroidism. Despite the previous negative exploration, a second operation was performed, and at this time a tumor was detected and removed.

Dr. Walter Newman*: I am afraid that the X-ray Department was not of much help to the clinicians in this case, as none of the classical X-ray findings associated with this disease was present. Bone changes are present in about one-third of these patients, but this case demonstrated neither decalcification nor the osteitis fibrosa cystica of vonRecklinghausen. Cystic areas in the maxilla, mandible, metatarsals, and metacarpals are especially suggestive of parathyroid hyperfunction, but none of these stigmata was present here. There was no decalcification of the lamina dura (peridental membrane) which also alerts one to this diagnosis. Plain film of the abdomen, however, does show marked pancreatic calcification. The chest film shows emphysema and pulmonary fibrosis. In the left superior mediastinum is an area of density which was thought at the time of the report to represent vascular markings made more prominent by the patient's scoliosis (figure 1).

Dr. Tatiana Antonovych†: The specimen

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* Resident in Radiology

† Assistant Professor of Pathology

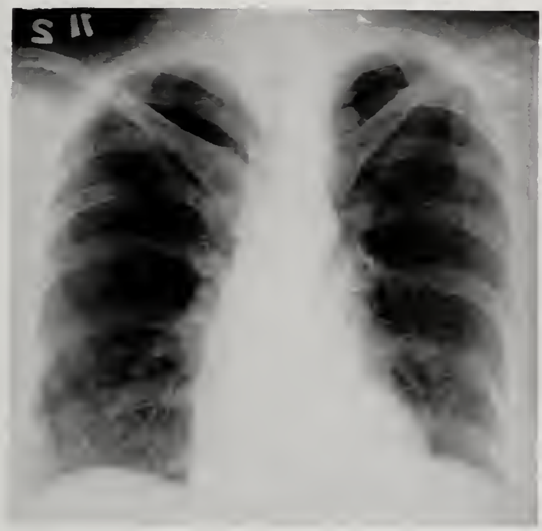

Fig. 1. Prominence in left superior mediastinum caused by the parathyroid tumor.

removed at Dr. Coffey's operation was an encapsulated tumor mass measuring 5 x 3 x 2 cm. (figure 2). A segment of peripheral nerve was incorporated into the capsule and grossly gave the impression of being the site of origin of the lesion. The tumor itself was firm, had a lobulated surface, and was brownish-pink in color. On cut surface, small cystic areas were seen. Microscopically the tumor is composed of solid strands and acinar structures composed predominantly of chief cells with areas of water-clear and oncocytic cells (figure 3). There is marked connective tissue proliferation separating the ribbons of well-differentiated epithelial cells. Neither mitoses nor vascular invasion is seen. Because the tumor mass shows all 3 cell types, our diagnosis is parathyroid adenoma.

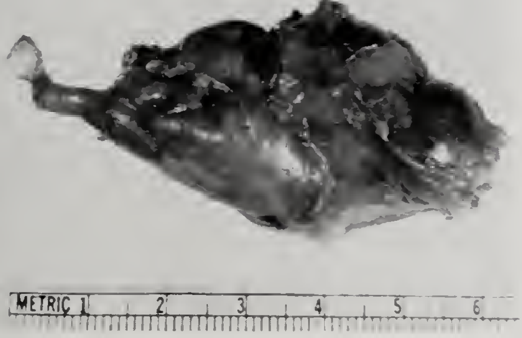

Fig. 2. Gross appearance of the tumor. Vagus nerve is seen to be incorporated in the capsule.

Parathyroid disease can at times be quite confusing to the pathologist attempting to classify the specific type of lesion present. Primary hyperparathyroidism is due in about 80 per cent of cases to a single adenoma of 1 of the glands. This gland is enlarged, and the other parathyroids are either small, or, at most, of normal size. Microscopically all 3 cells, the chief, the water-clear, and the oxyphil, are present, but usually 1 cell type, most commonly the chief cell, predominates. The remaining causes of hyperparathyroidism are associated with multiple adenomas, carcinoma, or, in about 12 per cent of cases, hyperplasia. This

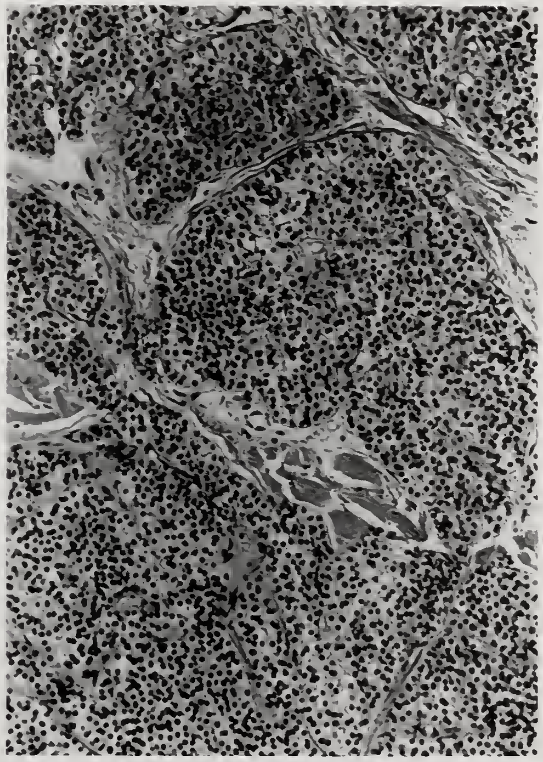

Fig. 3. Note the strands of chief cells. Areas of water-clear and oncocytic cells are present.

primary hyperplasia is characterized by general enlargement of all 4 glands, which microscopically are composed of 1 cell type, either the water-clear or the chief cell. Carcinoma is an unusual cause, and occasionally it is so well differentiated that it is distinguished from an adenoma only by its clinical course.

In secondary hyperparathyroidism, that resulting from renal disease, all parathyroid glands may be involved, but they are usually not as large as the glands seen in the primary disease, and all 3 cell types are present.

DR. JOHN CANARY*: This patient presented certain complexities in both diagnosis and treatment. She had suffered repeated bouts of renal colic, and deterioration of renal function had been noted. Certainly this illustrates the importance of calcium and phosphorus studies in patients with recurrent calculus formation. In her case an elevated serum calcium and a borderline to low phosphorus were present. The clinical problem was to determine whether these electrolyte changes represented primary or secondary hyperparathyroidism or whether they might be the result of other diseases such as sarcoidosis or multiple myeloma. Nothing could be found to substantiate any of these last diseases. Furthermore, on a trial of steroid therapy, 150 mg. of cortisone per day for 10 days, no depression in serum calcium was noted to suggest parathyroid etiology. On the positive side, the findings of hypercalcemia, relative hypercalciuria, low-normal serum phosphorus levels, and hyperphosphaturia, were all indicative of parathyroid hyperfunction. To distinguish between primary and secondary hyperparathyroidism is sometimes difficult. A strong point in favor of the diagnosis of primary hyperparathyroidism was the elevated serum calcium, since such elevations are practically never seen in secondary hyperparathyroidism. This finding, in the absence of other hypercalcemic disorders, was the essential feature for this diagnosis.

This was the rationale of the decision to operate on this patient in spite of her poor systemic and renal status. A comforting thought in this normotensive patient was that patients with primary hyperparathyroidism and resulting renal insufficiency frequently show improvement in renal function after the parathyroid lesion has been removed, provided that hypertension has not been present preoperatively. Conversely, those patients with hypertension in general have a very poor prognosis, according to Dr. John Howard, and rarely survive more than a year, even when the tumor has been successfully removed.

At operation, a large tumor, of a size similar to the tumors encountered in the early days of this disease, was detected in the mediastinum (figure 2). Parathyroid tumors that are located in the mediastinum are usually large, and it is postulated that they arrive in this position primarily as a result of gravity, rather than by embryologic migration.

As regards the biochemical evaluation of the completeness of the second operation, phosphorus excretion in the urine decreased many fold within the first 24 hours, and serum calcium has returned to normal. Symptomatically the patient feels greatly improved. I think her prognosis is quite good.

DR. ROBERT COFFEY†: An important feature of this case to be kept in mind is that at the first operation the right inferior parathyroid gland and a gland from the left side of the neck were identified and removed. The specimens showed neither tumor nor hyperplasia, and the patient continued to show evidence of hyperparathyroidism. The problem at the second procedure was to identify the remaining 2 glands, and to identify and remove a tumor.

Certain anatomic points should be kept in mind during these dissections, in which a dry field is an essential feature in order to identify the normal glands. These glands are almost invariably 4 in number and are found on the posterolateral aspect of the thyroid. The superior gland lies at the junction of the upper third and the lower two-thirds of the thyroid, and the inferior gland is found in close relationship to the inferior thyroid artery and the recurrent laryngeal nerve. Therefore, as the first step in this operation this nerve was identified on the right side, but parathyroid tissue could not be identified on the right. The left side of the neck was then explored, with negative results. When an initial exploration of the neck is carried out for hyperparathyroidism it is my practice to identify the 4 glands by taking a small biopsy of each with a scalpel. Since in this case the glands could not be identified, and because a vague nodularity was palpated in the substance of the right lobe of the thyroid, this lobe was removed. Frozen section demonstrated a parathyroid gland within the thyroid capsule, but it showed neither adenoma nor hyperplasia.

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* Assistant Professor of Medicine

† Professor of Surgery

About 10 per cent of parathyroid tumors are located in ectopic positions, and the superior mediastinum is by far the most common of these locations. Therefore, the mediastinum was explored through the collar incision, and a tumor mass about 5 cm. in diameter was identified behind the origin of the left subclavian and common carotid arteries. Since the vagus nerve appeared to be incorporated into this tumor, the possibility of a neurofibrosarcoma of the vagus was considered, since these tumors have been associated with chemical findings similar to hyperparathyroidism. The tumor was quite large and had a very nodular surface; these features suggested malignancy. Removal of the tumor necessitated sacrificing the vagus nerve. This, of course, produced paralysis of the left vocal cord. A prophylactic tracheotomy was performed because the right recurrent nerve had been subjected to considerable manipulation.

There is another point to be emphasized. This concerns the association of hyperparathyroidism with calcific pancreatitis. Normally pancreatic secretion contains a high concentration of calcium salts. In hyperparathyroidism this level is elevated further and precipitation of calcium salts occurs. This produces calculi in the pancreatic ducts with obstruction of the ductal system and secondary pancreatitis. In our series we have 3 patients with hyperparathyroidism who have calcific pancreatitis. One of these patients had, in addition to calcific pancreatitis, calcification of the liver, the pineal gland and the cornea.

STUDENT: Does the presence of hyperfunction of the parathyroid gland exclude carcinoma?

DR. COFFEY: No. The biochemical changes of hyperparathyroidism may be seen in carcinoma. Carcinoma of the parathyroid may not be functional, but, on the other hand, hypercalcemia does not exclude malignancy.

THE SWINDLER

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Brooklyn, New York

WHAT MAKES a person choose swindling as a way of life, as a means of gaining a livelihood, as a full-time career? What are the mental and emotional factors that motivate the swindler? What makes him act the way he does? What are the drives in his character structure that cause him to embark upon a type of behavior that most of us find antisocial?

For many years psychiatrists have been seeking the answer to these questions. They have learned some of the answers from a long series of studies on various kinds of swindling behavior.

For one thing, the swindler is a somewhat hysterical individual who derives an emotional satisfaction through living as one in a high social position, such as a nobleman, an army officer, a very successful businessman, a professional man, a high government official, or a successful writer, actor or artist. This is an obvious attempt to bolster a weak ego by assuming qualities and position that are nonexistent. Another and more common type obtains gratification by tricking his credulous victims out of money and other possessions. For the most part the swindler is intelligent, suave, glib, a well-met fellow, talkative, personable, and companionable. He is the victim of exaggerated imagination, with a weak will to resist the impulses which lead him astray. Vanity, supreme egotism, and uncontrollable wishful thinking carry him away into a life of fantasy and wholly unrealistic living.

As a rule the swindler is succesful in his undertakings because he can read the mind of his victim; he knows almost instinctively how to take advantage of his victim's weaknesses. He feels that no victim could see through his schemes. All this is due to the tremendous egotism of the swindler. In addition, this feeling of infallibility arises because the swindler feels confident of his ability to influence his victim's thinking. This is accomplished by dimming the common sense and judgment of the victim. The swindler's business is to arouse and stimulate the greed and acquisitiveness of his dupe. This is done with such consummate skill that the victim's conscience, logic, common sense and judgment are completely overwhelmed. Every swindler is thoroughly aware of the fact that there is a little bit of greed and larceny in everyone's character.

Let us examine the psychologic constitution of the swindler more closely. The swindler always pretends to be something more than he actually is. By assuming himself to be a man of high social position, a very clever financier, a nobleman, or a high government official he is able to gain the trust and confidence of his victim. Also, his charming, disarming behavior inspires confidence by firmness and self-assurance. In the bag of tricks of the swindler is his everlasting optimism that the most obviously unlikely and quite impossible situation will turn out well for his victim.

The swindler, unlike the normally adjusted individual, lacks the ability to enjoy his self-created success. He overdoes his triumph and shortly gets bored with it. He is cynical and worldly wise, and his attitude is remorseless and at times relentlessly cruel. He cheats people out of their money and possessions because in his mind they asked for it. They are so possessed of greed that they are always looking to take advantage of someone else. The swindler feels that if a person is stupid enough to be taken in by him he certainly deserves his bad fortune, and the swindler is not going to worry too much about it or lose any sleep over it.

For the most part the swindler remains a swindler. He seldom turns to other crimes, such as burglary, robbery, or murder. He usually abhors violence, which he regards as stupid and entirely unnecessary. He likes to live by his wits. He feels challenged by every new situation. He repeats his crime of swindling in different forms. Quite often he goes to great lengths to commit an ingenious and elaborate swindle. He is continually fascinated by his work and regards it as a mental challenge. The swindler usually has a good brain, but he uses it for antisocial purposes.

It is axiomatic that the swindler abhors honest labor. He works only in order to gain the confidence of the people he is to cheat. He works no longer nor harder than is absolutely necessary. He works not as a means of gaining a livelihood, but as a requisite for his schemes of cheating and swindling. Certainly as far as he is concerned "only fools work."

Another characteristic of the swindler is that he is incorrigible. He never learns. He keeps on swindling in spite of earnestly good advice and prison sentences. He may get a severe beating, but he will continue to swindle. Swindling has become a way of life with him; it is in his blood.

In the technic of the swindler, secrecy, mystery and intricacy are utilized skillfully to achieve his ends. In many cases involving wildcat schemes promising high returns, the very brazenness of the swindler and his implied invincibility are sufficient to dupe and render his victim gullible. Even among seemingly intelligent and hard-headed business men a plan that is sufficiently scientific or intricate has a lulling effect upon their judgment and common sense. Science, racial prejudice, belief in an impossible individual, finery and surface culture often act as a substitute for the human wish to get something for nothing. Who actually does not want to get something for nothing? Is not this the very reason that the swindler is so successful?

The swindler uses a form of psychologic approach akin to seduction. What he manages to do is to offer an outlet for the greed of his victim. Wishes and impulses known to be unethical, antisocial, and even criminal are released under the fascinating personality of the swindler.

The swindler is able to gain control of the conscience of his victim. In this way he is able to take advantage of the fact that almost everyone is on the lookout for a big financial scoop, a quick and easy profit. It has been found that most of the dupes of the swindler are moralistic, law-abiding citizens. Many fail to complain to the authorities because they realize that they themselves are not entirely free from guilt. The swindler knows this only too well. That is why he is able to pursue his career as a swindler often with very little interference.

Let us reiterate some of the elements that are part of the psychic constitution of the swindler. These are:

1. Inability to postpone.
2. Ineffective consideration of consequences.
3. Insufficient learning from experience.
4. Disproportionate responsiveness.
5. Emotions sometimes dominating intellect.
6. Devaluation of reality.
7. Disregard for truth.
8. Insufficient social valuation.

Let us examine these factors in some detail. The swindler is not capable of delaying. When he wants something he wants it without delay. When he thinks he sees an opportunity for swindling he will take it at once without stopping to consider the consequences. An action by itself may seem justified, but when we realize what may result from it, we may be deterred. The swindler does not stop to consider the future consequences of his actions. He lives for the present moment and never worries about what unpleasant consequences the future may bring.

The swindler does not learn effectively from even repeated experiences. He cannot recognize the future consequences of his present activities, and he cannot learn from past experiences. He cannot formulate general, workable principles from the experiences of his living. He lives only in the present and for the present; he is thoroughly fascinated by his immediate activities which crowd all else from his awareness and vision.

Very often the swindler's intellectual functions are dominated by his emotional stresses. This is a sign of immaturity which is found in all swindlers. He cannot be convinced that he is not superior to everyone else. He is a constant victim of wishful thinking.

Reality does not have its fullest meaning for the swindler. He is not capable of evaluating reality in its true significance because he is aware of it only in fragments. He is so constituted that while he does not deny reality he devalues it.

The swindler is more self-centered than the normally adjusted individual; his mental processes appear to behave in a less mature fashion than others. He has a total disregard for others as well as for himself. He is completely absorbed in the immediacy of his activities.

It can be stated that the swindler is a narcissist who is absorbed with the fascination of his own inner drives to the detriment of the usual wide scope of activities which lead others to augmented horizons and to broadened socially controlled interests in life.

To sum up, in the swindler are to be found certain definite characteristics which are indicative of a limitation in psychic development. This consists of a continuing restriction of affective attachments such that significant or urgent motivating value does not widen its scope to include much of the world of reality external to the self as is usual in adult life. It is a permanence of some attitudes of human psychology which were normal for one level of the evolving mental complexity but whose continuance is indicative of a form of persisting immaturity. In the swindler there is an enduring tendency to measure by a personal rather than a social or group yardstick but involving no further distortion of reality.

The swindler is not mentally deranged; he is not psychotic nor is he psychoneurotic. Clinically, he is a psychopathic personality, a sociopath. He is suffering from a character disorder. He is morally deficient in all social values that make for effective and socially useful living.

President's Page

A CONTINUING EDUCATION

The need to participate in a continuing program of medical education after graduation from medical school is recognized by all doctors. Whether he be a general practitioner or a specialist, the farsighted physician makes every effort to remain up-to-date in the rapid progress of medical science. Those who stop learning when they leave their internship or residency quickly fall behind. The strongly motivated, studious individual keeps abreast of progress by taking courses, going to meetings, and reading the current literature. There is a wealth of information in the journals, the monographs, and the countless books which cover every conceivable facet of medical practice. Unfortunately, the busy practitioner, unless he is an exceptional individual, has a difficult time keeping up with the literature.

An invaluable source of information can also be found in the carefully planned programs of hospital and Medical Society meetings—by those who attend! But we must be realistic in appraising the true and the potential value of these meetings. Unquestionably, the demands upon a doctor's time are so great that it becomes physically impossible to attend all the meetings which the individual is either obliged to attend or would wish to attend.

With a very clear insight into this problem the Society's Committee on Postgraduate Education is making every effort to present the type of programs for which there have been the greatest demand. In pursuance of this effort the Committee sent out a questionnaire last year which was used as a guide in planning this year's programs. We can now assess the results of the meetings held in the first half of the year.

The attendance at the three sessions of the Midwinter Seminar averaged 175. The programs were very well received, and although we had hoped to attract a larger attendance, it was nevertheless gratifyng. The same cannot be said of the Clinico-Pathological Conferences. The attendance at the first one, held in January, was 75. It was less than half that figure at the second one; this was partly due to a change of dates made necessary by a heavy snowstorm on the night it was originally scheduled. The program of both conferences was excellent and the poor attendance was regrettable.

We sincerely hope that the Committee's efforts in the preparation of the Basic Science programs this fall will merit the approval of the membership and stimulate very good attendance. There will be 8 meetings, held once a week in October and November. The type of programs and the weekly interval are in accord with the wishes of over one half of the respondents to the questionnaire.

One thing seems certain; a carefully coördinated liaison should be worked out with the Medical Schools and hospital staffs. We must try to reduce the total number of meetings held in the city and at the same time afford more physicians the opportunity of attending meetings, which frequently conflict with each other. This effort will require much good will and long-range planning. The problem may be difficult, but its importance should be recognized by all. For our part, we shall continue to plan the type of programs for which there is genuine demand. We must not lose sight of the fact that the main purpose for the founding of this Society was to provide a forum for intellectual exchange. Education is a continuing process in the life of a physician.

Victor R. Alfaro.

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Editorials

FOREIGN GRADUATES ON HOSPITAL INTERN AND RESIDENT STAFFS

It is apparent to the administrative and professional management of hospitals that acquiring competent intern and resident staffs is becoming more difficult each year when the usual appointments are made. The time has long passed when competitive examinations provided a choice from a group of graduates from American universities. A cursory examination of the situation supplies the answer. The number of hospitals and admissions have increased, but the number of graduates have not kept pace. The care of patients demanded by modern medicine has increased the burden of hospitalization, to say nothing of the expense. Hospital personnel have assumed more duties through advances in diagnosis and treatment, and more accurate and elaborate records during the period of hospitalization are required. These things have been

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of the Medical Society of the District of Columbia

necessary and justifiable because they have shortened the number of hospital days and extended the average duration of life by many years. For these accomplishments additional professional personnel have been required. The matter of records alone, to conform to the standard prescribed by the Joint Commission on Accreditation, has required a larger intern staff.

The hospitals, because of the dearth of medical personnel, have employed graduates of colleges outside of the United States. This practice was slowly adopted, then spread as the pressure increased. It had its defects, as the hospitals soon found out. It was not always possible to evaluate the medical training of the applicants because no criterion or inspection was available. No information was to be gotten from schools behind the Iron Curtain. Thus, interns were appointed with very little data relative to their backgrounds. Many had from fair to poor command of conversational English and medical terminology, but very few patients have resented the professional relationship and were usually tolerant and coöperative.

During the past few years a step has been taken by the American Hospital Association and the AMA to eliminate foreign interns who by examination prove unqualified. An organization was set up known as the Educational Council for Foreign Medical Graduates, abbreviated E.C.F.M.G. The American Hospital Association ruling follows that of the American Medical Association, which has stated that it will withdraw approval of internships and residencies in hospitals employing graduates after July 1 unless the appointees meet one of the following requirements:

"1. Possesses a full and unrestricted state license to practice;

2. Are in their final six months of training;

3. Have received a temporary certificate from the E.C.F.M.G.; or

4. Have been given a contingent appointment for not more than six months based on their having been accepted for the September 1960 American Medical qualification of the E.C.F.M.G. Extension of the appointment beyond December 31, 1960 will be dependent upon the appointee receiving temporary or standard certification from the E.C.F.M.G. as a result of this examination."

It is interesting to note the statistics in a paper by Dr. Carl Bearse in the May 19 number of the *New England Journal of Medicine* in reference to the examinations. In the March 1958 examination, of the 298 foreign candidates who applied, 51 per cent were granted the standard certificate; of the February 1959 group, 43 per cent passed; of the September 1959 group, 45 per cent were successful; and of the 6,029 who took the examination in March 1960, only 33 per cent received the standard certificate. In 1959 there were 6,860 graduates from the American medical schools and 8,392 physicians from 91 foreign countries training in 846 hospitals in 40 states.

The matching program which has been in operation several years has been implemented this way: Hospitals make known the number of interns and residents requested and furnish such information that would be adequate for the applicant to make a choice. The prospective intern sends in his application, noting his choice of one or more hospitals. In the last awards, 6,672 internships were filled and 5,709 were unfilled. The local hospitals in 1960 sought 181, and 86 were matched or supplied.

Some hospitals have indicated that they would prefer to lose their accreditation than to be deprived of their interns or residents. The number of applications for admission to medical schools is diminishing to a serious degree when the increase in population is taken into consideration. This has not escaped the university deans and it is quite probable that qualifications for admission to the medical schools will be amended or lowered. It is possible that applicants with grade B and C ratings will be accepted. The opportunity for high school graduates to pursue briefer courses in other scientific fields with assurance of immediate employment, with living compensation and prospect of advancement, has diverted many from the study of medicine with its unpredictable future and with the shadow of socialization of the profession hanging over it.

There has been some complaint, probably justifiable, by the endorsers of foreign students of the inadequate training of their students, who return to their native soil with a poor opinion of American methods. They say they act as orderlies and do not have systemized courses of instruction. We are not fulfilling our obligations if we do not meticulously do everything in reason to make them better doctors and send them back as emissaries of progressive medicine and ambassadors of good will. More of our Marshall Plan funds could well be allotted to improving medical education in their universities so that the graduates could participate more effectively in improving medical standards in their own countries.

This problem of procuring competent intern staffs may become insoluble unless intelligent leadership takes over. If the hospitals are expected to coöperate it seems possible that the rules prescribed by the E.C.F.M.G. could be liberalized or amended.

C. S. W.

THE VOLUNTEER IN MENTAL REHABILITATION

The role of the volunteer in the mental hospital has been steadily developing during the past few years. This has been due only in a small measure to the pressure of staff shortages; rather, it has been due to a recognition of the valuable and unique role the volunteer can play in the treatment and rehabilitation of the patient.

From the point of view of the patient the volunteer brings assurance of the interest of the community in his welfare. The value of this knowledge alone is a valuable antidote to the feeling of isolation which the patient all too often suffers. The presence of the volunteer is, too, a living demonstration of the fact that persons outside the hospital are not afraid of the hospital or of the patient. The services which the volunteer may render are multifarious; dance, music and art, classes in typing, domestic science, languages, recreational activities, trips to entertainments, and the operation of beauty parlors, libraries, reception desks, and records are only a few. Groups of volunteers, such as religious organizations, American Legion, and so on, may "adopt" wards or bring entertainments or hold parties.

For the volunteer the experience is an educational and rewarding one. She learns from actual experience and observation that the mental hospital is a place of hope, not despair, and that mental patients are not so very different from the people outside; she is thus in a strategic position to disabuse the minds of her friends and acquaintances of the many prevalent misconceptions about mental illness and hospitals.

There is a deeper value to the volunteer's experiences, a spiritual one. She comes to realize that there is such a thing as altruism and that there are deep satisfactions, religious in the broadest sense, in giving of one's self to others. It is a truth, not only psychiatric but religious as well, that only by giving love can we receive and experience it. Truly, as Sir Launfal discovered:

"The gift without the giver is bare;
Who gives himself with his alms feeds three,
Himself, his hungering neighbor, and Me."

W. O.

MEDICAL WRITING—A CHALLENGE TO THE PHYSICIAN

Writing, like love, cannot be forced.

There may come a time in your life as a physician, whether it be general physician, internist, surgeon, or any one of the multitude of specialties, when you feel you have enough material of one kind or another to prepare an article for publication in some journal. This article is, of course, primarily for the instruction and betterment of knowledge of your fellow physicians, and perhaps it will also boost your ego a notch or two. Both reasons are most excellent excuses for medical writing, especially if the piece you are about to do will be a good one for the readers.

But, can you write? Oh, yes, you can put one word after another. You can make your sentences make sense, and perhaps you can even prepare this article in proper grammar and sequence. But, will more than two doctors read it if it does get by the editor? The good writer knows almost instantly when his piece is finished whether it will be read by others or skipped, just as the speaker knows after the first few minutes of his talk whether he has or has not "got" his audience.

Writing resolves itself about revision and rewriting, typewriter and wastebasket.

If you are easily discouraged, writing, then, is not for you.

We busy physicians feel and know that many times we have something to say and write for our fellow-physicians, and that some day we are going to "organize our thoughts" and get down to the business of writing. But why don't we get down to the business of writing now? Is it just simple procrastination, or is it ignorance of sentence structure, composition, style, and presentation? I do not believe that any of these is the basic reason. I believe that the reason most likely arises from the lack of adequate training in the premedical school curriculum. Also, most of our medical schools fail to provide sufficient training in the proper use of the English language (except for medical terminology). This lack of emphasis on language is reflected in the examinations, which are almost exclusively true-false tests. Rare is the essay question. Furthermore, there is no training in medical writing throughout the physician's internship and residency years.

Writing, like love, cannot be forced. You must first be attuned and happy about the prospect of seeing your words and name in print. If you say that this does not touch your ego, then you are either a liar or deceased.

Why Write?

When you finally get to your trusty typewriter, or with pencil and pad in hand, ask yourself this question before you begin the first word: "Why am I writing this article?"

If you can honestly say that the article you are about to write will increase medical knowledge, help your fellow physicians in some way or another, and appreciably add to medical or surgical literature, then you have a valid reason for writing and submitting your paper for publication.

The primary obligation of the author is worthwhile content. Usually, editors will more than happily receive any contribution that diminishes the space between the known or the unknown; any writing showing an improvement upon the ideas, observations, technics, or better understanding in new observations or discussions of previously reported facts; a critical review of the literature on a timely or controversial subject; report of experiments, addition of cases to, or information on, some obscure disease; helpful diagnostic or therapeutic hints; or a solution to a different medical or surgical problem unreported in the literature.

BEGIN NOW

At the beginning you should have a clear idea about your final product. Then begin writing at once. Do not begin at the beginning. Select some aspect of the subject which is uppermost in your mind at the moment and write fully about it. Keep writing, the middle toward both ends or both ends to the middle, as it were, and in 2 or 3 hours you will end up with many sheets of easy-flowing writing. The beginning will usually evolve without your help, and the ending may take longer than the entire manuscript. Just keep on writing page after page. If you want or need 10 pages, write 20 or 30, or even more. In doing this you will not cramp the article's growth. Don't try to condense it. This comes later. Write, write, write. Eventually you will be stymied. This is good. This is a natural brake. Put the piece aside and forget it for about a week or two. In the meantime continue to review (you should have done this before you even began your masterpiece) all the literature pertaining to what you are writing about. No one can write sensibly without reading about his subject.

At the end of 5 or 6 periods of writing you now have the finished manuscript, in bulk, and are ready for cutting and condensing. As you review the article the opening paragraph or even the first page may very well be found on page 14. It just fits at the beginning and that is where you put it after revision and correction.

After you have rewritten and revised and completely typed or handwritten the entire article a few times and are smugly satisfied with its perfection, put it aside for a week or more (I have put some articles aside for a year or more, reread them and dumped them into the wastebasket), then read it through again, and be alerted for the following: redundancy, style, prolixity, ambiguity, parallelism, continuity, sesquipedality, obfuscation, and proper direction, to name a few items.

Redundancy. Now is the time to read the manuscript through from beginning to end to remove the inescapable redundancy. You have said the same thing 2 or 3 times on different pages of the manuscript. Select the statement with the most telling words and place it in the most logical position in the article where you try to make a definite point, and eliminate the other statements that are repetitive.

Style. Almost all good writers are dissatisfied with their style and constantly try to improve it. How? By practice, just as the violinist listens to the masters and then in his daily practices tries to catch some of their style. Read good writing, watch the style and approach to the articles. Read novels and magazine articles and learn a diversity of style. To limit your reading to scientific material will stunt your style, your vocabulary, and your expression. Be persuasive, and let your writings glow with your own belief in what you are writing about. Be earnest in your writing, and people will read you with interest.

Prolixity. Prolixity in writing is the thief of the reader's time. Say what you have to say in the shortest possible amount of words and pages. Eliminate unnecessary phrases and explanations. There are probably plenty in this piece I should eliminate. Get to the point, get beyond the point, get finished.

Ambiguity. Ambiguity is one of the glaring weaknesses in scientific writing. What the writer means is so clear to him regardless of how poor his observations may be stated that he is incapable of recognizing the ambiguity. A good example would be "the World War II head injury patient" or the example Doctor Stilwell uses, "the external anal sphincter is contracted and held while counting slowly to five."

Ambiguity may also result when nouns are used as adjectives. The word "only" in many sentences may yield various meanings to the reader, and it is better at times to reconstruct the sentence without this word in order to eliminate any possible misunderstanding.

Parallelism. Most manuscripts have too few rather than too many headings. Compartmentalization by headings helps the reader immensely. Lack of parallelism in categories often leads to confusion. The author may start out by nicely dividing things into groups, subgroups and classes and then depart from this terminology so that parallelism is lost and the reader becomes hopelessly confused.

Continuity. Poor continuity can occur in the entire paper, in sections, in paragraphs, and even in sentences. Many scientists can do an excellent study with complicated technics and instruments but cannot put their results down on paper in clear, simple, concise fashion with an easy-to-read continuity of style or logic.

Continuity can be accomplished at times with the use of a good pair of scissors, cutting and reinserting the material where it fits properly and where it flows with the preceding and following material.

Sesquipedality or sesquipedalianism. This is just what I have done in the heading—the use of long words, rather than short simple ones. The physician-writer tries to impress his reader (or readers) with his perfusive knowledge and therefore must by some compulsion use the long word. Whenever I read the word "armamentarium" I immediately skip the rest of the piece and go on to the next article in the journal. Wouldn't the word "tools" be much simpler? And doesn't it tell the story without torturing your brain and rasping your nervous system?

Obfuscation. Haven't we all read an article now and then and said to ourselves, "What is he talking about?" That is obfuscation. The author confuses and blurs what he means to say. It is the difference between milk and water, between clarity and confusion.

Proper direction. Proper direction is just as important as the article itself. You, the author, must be sure the article is directed to the journal best suited to present your manuscript for reading by physicians or scientists interested in your subject. Is your subject best suited for practicing physicians or researchers, for specialists or general physicians? And does your article have the proper slant for the group intended? Ask yourself these questions before you dump the manuscript into the mailbox on the corner.

Again, let me repeat, after you have rewritten your piece 3 or 4 times and are quite satisfied with the style, continuity, grammar, and, above all, the content, you are now ready for the final typescript. Now with the final copy all nicely typed you had better check again, for there just might be something you would like to correct or eliminate. Sometimes glaring imperfections just don't show up until the beautifully typed final copy is on your desk ready to send to the editor.

Finally, just before you have sealed the envelope, and perhaps the fate of your masterpiece, allow one or two true representatives of the type of reader for which it is intended review your article.

I have tried to outline some of the problems and, I do hope, stimulate the practicing physician to do more writing. Concisely, writing resolves itself into the ABCD's—accuracy, brevity, clarity, and directivity of the particular piece you intend to write and have published. If you follow these four steps with a good subject, served with simple language, you just can't miss. Try it. Here is for more writing from all of you.

I. P. F.

ANNUAL REPORT OF THE PHYSICIANS' SERVICES COMMITTEE OF MEDICAL SERVICE*

At a time when Government activity in the medical affairs of our community and in the Nation appears to be gaining momentum, physicians should recognize the importance of supporting Medical Service of D. C., and Blue Shield Plans in general, in their efforts to finance medical expense for such vast members of citizens as the dependents of Armed Services personnel, and the more than 5 million persons eligible to participate in the Federal Employees Health Benefits Program. It should be recognized that none of the insurance companies, closed panel programs, employee union organizations, or other agencies servicing Federal accounts will provide for participation by the physician in the control of their affairs in anything like the manner inherent in the structure of Medical Service and other Blue Shield Plans. Of the organizations involved in servicing the Federal employee account, for instance, none except Blue Shield will be in a position to resolve problems of medical interpretation, prescribe allowances and fees in keeping with the community level, or perform other functions peculiar to physicians' interests through the use of committees composed entirely of physicians in the private practice of medicine. For Medical Service of D. C., these functions are accomplished in large degree by its Committee on Physicians' Services.

We believe that it is to the ultimate benefit of patient and physician alike if physicians themselves solve the problems created by their participation in medical care financing, and the Committee on Physicians' Services has been active in this regard during the past year. A total of 1,120 man-hours have been devoted by the members of the Committee to the consideration of 237 cases involving a variety of problems. I believe that the Committee has analyzed these cases carefully, and disposed of them fairly. The Committee as a whole has been objective in its consideration of the problems with which it has been confronted. The rights and interests of the subscriber have been considered in proper balance to the rights and interests of the physician, for we all know that lack of public confidence in a program sponsored and directed by physicians would reflect unbecomingly on all physicians. In its consideration of cases for which allowances are to be determined by the Committee, it is necessary always for the Committee to bear in mind that the allowances provided by Medical Service are intended to serve as compensation for subscribers who are within specified income levels, and are not intended to represent the value of any service or establish the physician's charge for his service. Allowances granted in an individual case must, therefore, be considered in relation to other fees and allowances in the schedule. Also, no matter how clearly it is recognized that a particular service was needed and skillfully performed, the Committee must carefully analyze the contract to determine whether or not it is a procedure for which the contract provides benefits, and that the cost of the service has been included in the amount that the subscriber pays in the subscription rate.

Claims for Postsurgical Medical Care

Among the problems confronting the Committee during the past year was one which results from claims being submitted for the nonsurgical treatment of a hospitalized patient following a surgical procedure. The subscriber's contract specifically excludes benefits for such visits during the period of hospitalization following a surgical service. By an effort to provide a reasonable interpretation to the problem, the Board of Medical Service has authorized payment for medical visits following surgery in some special instances, particularly when the surgery is a diagnostic adjunct to the medical care of the patient, as when a surgical biopsy is performed during the course of the patient's hospitalization as a nonsurgical case. However, it would seem that the tolerant attitude of the Board with respect to the language of the contract on this subject may have encouraged the submission of a number of cases for which no provision has been made in the terms of the subscriber's contract or its cost to the subscriber.

ILLUSTRATIVE CASES

In a case in which the patient was hospitalized for approximately 2 months with a diagnosis of bullous emphysema, pyelonephritis, diverticula of bladder, hematuria, and hemorrhagic cyst, major bladder surgery was performed for which benefits were provided by Medical Service. However, a claim was submitted by another physician who stated that he was directly supervising the entire problem, and that continuous medical supervision was necessary in the case. The Committee concluded that payment for the medical management in this case was outside the terms of the subscriber's contract, and that benefits should be provided only for the surgery and its aftercare in the hospital.

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* Presented at the Annual Meeting of Participating Physicians of Medical Service of the District of Columbia, April 27, 1960.

In another case, the surgeon performed a cystoscopy and retrograde pyelogram, exploration of left kidney and excision of solitary renal cyst, and suprapubic prostatectomy and vasectomy. These procedures were performed on 3 different dates. Another physician submitted a claim for medical visits with a diagnosis of hypertension and myocarditis. He stated that the patient was generally ailing, had considerable urinary symptoms and hypertension. He went on to say that he took care of the patient from a medical standpoint, checking on and treating the hypertension while the surgeon took care of the urologic problem. The Committee concluded that benefits should not be paid for medical visits following the major surgery. However, payment for visits could be made up to the date that the first major surgical procedure took place. In this connection, it should be noted that the contract excludes benefits for medical visits made during the period of hospitalization following a surgical procedure but does not exclude benefits for the medical management of a patient for unrelated conditions prior to the date of surgery.

The whole problem of providing benefits on a reasonable basis for concurrent medical care while the patient is hospitalized as a result of surgery is being studied by the Board of Trustees at the present time, and the regulations under the Federal Employee Contract may have some effect upon the final management of this problem.

Claims for Complications of Surgery

Some of the problems considered by the Committee have plagued the Committee for a long time. Among these is the question of payment for complications of surgery for which benefits have been provided. It has been a long-standing policy of the Committee that Medical Service should not provide additional payment for the treatment of all complications, since the Plan would be making supplemental payments in many cases where an additional charge would not normally be made. However, the Committee is authorized to consider some cases individually when the complication is a result of the disease process, and the Committee reviewed 17 cases involving postoperative complication during the past year.

ILLUSTRATIVE CASES

The Committee considered a case involving a subtotal gastrectomy followed by a splenectomy performed 8 hours later. After carefully considering the operative reports, it was decided the splenectomy was performed for a postoperative complication and therefore the allowance for the gastrectomy should include coverage for the second procedure.

In another case, Medical Service provided an allowance of $35 for biopsy of cervix, excision of lesion of cervix, endometrial biopsy, and cauterization of cervix. The surgeon then submitted additional claims for D & C and suture of cervix 3 days later, and a claim for benefits in connection with suture and tracheloplasty of cervix 6 days following the original surgery. The Committee concluded that the second and third operations were required to treat a postoperative complication and that no additional allowance should be provided.

The surgeon performed a gastrostomy with biopsy and resection of a polyp of the ascending colon. The patient continued to bleed, and later the same day the surgeon did a gastrostomy with ligation of bleeder and transfusions. Medical Service provided benefits for the first procedure, and the physician requested payment for the second surgical episode as well. The Committee agreed that the surgeon was not entitled to a fee for the second operation since it was required for a postoperative complication. It is the feeling of the Committee that physicians should not be encouraged to submit claims for the treatment of complications to Medical Service when they would not submit bills for care of such a complication to a patient who does not have insurance benefits. If such an attitude became universal, or if Medical Service were to be moved into the position of automatically paying for all cases involving complications, the total health bill in the community would be inflated and it would be difficult to retain the confidence of the public in the integrity of the medical profession with respect to charge practices.

MULTIPLE CLAIMS FOR SURGERY

Another problem of particular concern to the Committee results from claims being submitted by more than one surgeon for one episode of surgery. The Schedule of Fees provides that "when two or more operative procedures are performed at the same time through the same surgical opening, or by the same surgical approach," payment shall be limited to that operative procedure for which the highest allowance is set forth in the Schedule, and that "when care is rendered by two or more physicians for the same condition, payment for such care will be the same as if rendered by one physician." This should apply whether the procedure is performed by one surgeon or by more than one surgeon, and the Committee has opposed any increase in the cost of surgical care resulting from claims being submitted by more than one physician in such cases.

ILLUSTRATIVE CASES

As an example, we reviewed a claim for a Manchester operation for which payment was made to the surgeon in the fee schedule amount. Subsequently, a claim was received from another physician for repair of cystocele at the same time. It was concluded by the Committee that the maximum allowance for the surgery would have been the same had the cystocele been repaired by a single physician and that this allowance should not be increased because another physician was called in on the case. It was concluded by the Committee that the payment should be apportioned in an amount agreeable to the two physicians involved.

In another case, the patient had a diagnosis of fibroid uterus, fibroma of the right ovary, and infarction of 3 feet of small bowel. A gynecologist did a myomectomy, removed the fibroma, and released the adhesions. At the same time a general surgeon performed an exploratory laparotomy and resection of 3 feet of mid-ileum. After reviewing these claims, the Committee recommended that the scheduled allowance be provided in this case, but that it be allocated between the general surgeon and the gynecologist.

One surgeon removed an ovarian cyst and another surgeon performed a resection of the sigmoid colon. The Committee decided that the maximum fee schedule allowance should be provided but that these two doctors should be informed that the Committee would allocate this payment in any manner that would be agreeable to them.

While cases involving claims submitted by more than one surgeon for the same episode of surgery were not great in number, they illustrate a problem which could affect the financial stability of the Plan. The allowances provided by Medical Service are related to the incidence of procedures performed, and the rate to the subscriber is developed accordingly. This actuarial approach to the cost of providing benefits under the Plan allows for a reasonable cost of operating the program, and a modest addition to reserves. If the prognosis of the Plan's financial position is thrown out of balance by the number of claims received or payment in excess of the amounts listed in the Schedule of Fees, the loss would first affect the reserve position of the Plan and would then be related to the Plan's ability to pay the full schedule amount for claims submitted by all physicians.

REWARDING SERVICE

There were many other problems considered by the Committee, and it has been the experience of those of us who have served on the Committee that when a problem of one type becomes resolved another arises to take its place. This permits for a certain amount of variety and stimulation in the conduct of our affairs, and satisfaction when problems are finally overcome. Despite the fact that committee meetings averaged 2 hours and 50 minutes and are held at intervals of approximately 6 weeks, the experience of service on the Committee on Physicians' Services is a rewarding one. I believe I can speak for the members of the Committee who have served with me during the past year in stating that membership on the Committee has been a stimulating and worthwhile experience, and one that we have all enjoyed. The other members of the Committee are Drs. C. Willard Camalier, Jr., C. Barrie Cook, Joseph Dessoff, Edward E. Ferguson, David S. Johnsen, Allan M. McKelvie, J. Peter Murphy,

(*Continued on page 426*)

POLITICS AND PREPAID MEDICAL CARE

HOWARD HASSARD*

General Counsel, National Association of Blue Shield Plans

The term "political influences," as used in this presentation, is intended to relate to both individual and group actions of a character calculated to shape government activity—legislative, executive, or judicial.

To understand the influence of individuals and groups on what our governments—Federal, state and local—may or may not do, it is first necessary to understand the practical day-by-day functioning of a republican or representative form of government.

To become a legislator or a chief executive, or in some instances a judge, one must be elected by a majority vote. Of course, this means that elected officials are sensitive to the will of the people. But the question is, how does one find out the people's will on any given issue?

The sad truth is that most of us pay little or no attention to the public issues of the moment, local, state or national. It is only a vigorous minority that keeps abreast of civics in action. By and large, this vocal minority is composed of individuals who belong to one or another self-interest group, e.g., merchants, pharmacists, farmers, machinists, insurers, etc.

An elected official soon discovers that a vocal and aggressive group, no matter how small, can influence great numbers of voters.

Elected representatives must carry on campaigns. These are costly affairs. Even a wealthy person cannot afford, after taxes, to finance a political campaign of any size. Hence, practically all elected representatives must look to friends and supporters for necessary campaign financing. Here again, human nature being what it is, an elected official is bound to lend at least a receptive ear to a group that has financially helped him in his election campaign, if for no other reason than that a candidate becomes personally acquainted with the people who help him.

Candidates also need volunteer labor for the mailing of literature and similar tasks. This is hard to find, and is always gratefully appreciated.

It is of these elements that "political influence" is compounded.

With respect to organized groups that assert political influence, all have one point in common, to wit, complete self interest. This is not a matter of dishonesty or culpability; it is simply human nature for any group of individuals having a common objective to become completely engrossed in that objective and to promote it, often to the exclusion of all other factors.

SPECIAL INTEREST GROUPS

Hence, to appraise the political influences that will govern any phase of our community life, one must first seek and identify the special interests that are involved; then identify the selfish interest of each special interest group; then evaluate the degree of "political influence" possessed by each group.

After this process has been accomplished, one may then appraise the total picture and estimate which self-interest or combination of selfish interests is likely to prevail.

Applying these criteria to voluntary prepayment health plans, we find a number of factors:

First, every living human being is personally concerned about his or her physical and mental well-being; hence, the number of interests that are involved in any health problem encompasses almost all special interest groups.

This fact alone makes an appraisal of political influences in this field extremely difficult, to say the least. Since health is a subject of common interest to all, special interest groups tend to abound in the area of illness and injury. Enumeration of all such groups would require more time than is available to me; therefore, I will only identify a few of major importance.

Physicians and paramedical groups. Within the health field itself, the groups that have their livelihood at stake naturally have an overwhelming self-interest (as in every other field) and naturally play a major role. Physicians, dentists, nurses, pharmacists, hospital trustees and administrators are all special interest groups with major political influence in the area of health services. Voluntary prepayment plans are of immediate concern to them.

Labor unions are concerned with the well-being of their members; this includes their health during their working years and after retirement.

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* EDITOR'S NOTE: Mr. Hassard is also Executive Director of the California Medical Association, 693 Sutter Street, San Francisco 2, Calif.

Organized labor has constantly devoted a special interest to health, and it always will. Its self-interest is to acquire "the mostest for the leastest" for its members. Unions were organized to raise wages and improve working conditions, not to lower wages and worsen working conditions. The self-interest of labor organizers is to secure complete health care of high quality at no cost.

Farmers have a special interest in health services and the cost thereof. Farm income is irregular both as to time and amount. Farmers therefore may be expected to be security-minded and to want health services on a certainty-of-coverage basis. Farmers are self-reliant as a group, but their self-interest calls for protection against disaster.

Employers are vitally concerned with health services. An employer has 2 self-interests: one, the taxes and wages he must pay; the other, the productivity of his labor force. When employers purchase health insurance they add to their cost of doing business. They do not do this out of altruism; it is done in order to secure healthier employees and a more satisfied group of employees. The self-interest of employers requires careful scrutiny of costs and insistence upon value received.

Voluntary prepayment health plans provide a means for the payment of the costs of physicians' services, hospital services, and other sickness costs. As such, voluntary prepayment plans are in the center of the political influences that affect the health field.

The desire of labor to secure health coverage without direct expense to its members has been expressed in the present decade primarily at the collective bargaining table. This technic involves placing the cost burden on the employer and utilizing voluntary prepayment plans and health insurance carriers.

To the extent that health insurance secured through collective bargaining fails to pay all of the cost of health services, labor will be dissatisfied. If that dissatisfaction becomes intense, labor will then turn to the Government's power of taxation. It has taken this step on occasions.

During World War II the CIO and AFL in California engaged in an all-out political campaign to secure passage of a compulsory health insurance law. Political influences of employer groups (who don't want additional taxes), farmers (likewise against additional taxes), and physicians and others caused the defeat of Governor Earl Warren's compulsory health insurance bills.

As a by-product, the growth of voluntary prepayment plans in California and of health insurance in general was tremendously stimulated. Perhaps that is what labor wanted.

Currently, the AFL-CIO is engaged in an all-out effort to secure passage of the Forand Bill. This should not be surprising, nor will labor's efforts cease. Labor has a direct interest in health care for its retired members. Again, it is stimulating the provision of such services at low cost by proposing a resort to Government and taxes. Perhaps, again, it is indirectly aiming at the extension of retiree coverage in all voluntary prepayment plans.

One political fact of life is that the larger an enterprise grows and the more people it affects the more it becomes subject to political influences. A century ago the railroads vitally affected the lives of people. To secure equality of treatment and free access to the railroads, political pressures caused government regulation. Later, gas and electricity became of extreme importance to the public. Again, political influences resulted in regulation, and in some instances in public ownership.

That which the public needs it takes measures to secure on an equitable basis, even if this means resorting to governmental power.

CONCEPT OF MEDICAL CARE AS BASIC RIGHT

Somewhere along the line, and I doubt if anyone can state exactly when, the average person in the United States reached the conclusion that medical care in its broadest sense—including hospitalization, physicians' services, and ancillary care—is a matter of right, a necessity of life akin to a public utility.

This concept one finds stated in various forms time and time again.

When any service or commodity is a commonly recognized basic necessity (as, for example, heat and light, transportation, and—latterly—medical care) then it is particularly liable to political influence and eventually susceptible of public regulation, if society finds such regulation necessary.

Physicians are licensed by the state to perform services of recognized basic value, and, as a group, they are granted a monopoly status. Society's own interest requires it to protect the medical profession from the competition of other persons not equally trained and qualified to render such professional services.

Moreover, the services that physicians render directly affect not only the welfare of the individual as a patient but the efficiency and solvency of the entire social economy as well. When an ailing worker, for one reason or another, fails to receive prompt and competent medical care, he may retard the production of essential materials, his disability may throw several other people on public relief, and he himself may occupy a bed in a public hospital at a considerable expense to the taxpayer.

Thus society has a direct and palpable interest in seeing to it that every individual has unimpeded access to competent medical service, entirely apart from its concern with that individual's own health and happiness.

Aside from the growing interdependence of all the elements of our complex and specialized social order, there are other major factors that are conspiring to heighten the popular (which is to say, the political) interest in medical affairs. For instance, the very refinement and progress of medical science itself have lent medical service an increasing intrinsic value—an almost measurable value—which has helped make it an important counter in the political game. In other words, when the politician promises medical benefits today to any group of voters for whom such benefits have heretofore not been too readily available, he is offering a political inducement that most of his prospective supporters look upon as a benefit quite as real and tangible as a paid vacation or even an increase in hourly pay.

Politics vs. Costs of Medical Care

Another factor that alone would have made political interest in medical care inevitable is the cost of medical care, the manner in which those costs are incurred, and the fact that illness and disability are no respecters of persons.

Medical service has become more expensive not only because everything else has become so, but also because it is becoming more effective. The need for medical service is unpredictable and the total costs in some individual cases may become unsupportable by the individual or his family.

The wonder, indeed, is not that society, and its political agencies, take such an acute interest in medical care as they do, but that this interest has manifested itself in such mild Federal political action up to this time.

Perhaps this is a tribute to the medical profession, but I suspect that the profession would be rash to rest upon that assumption.

We have said that medical care has become recognized as a basic human right, that medical services and the organizations through which they are provided and paid for are being more and more looked upon as akin to public utilities, and that political action to facilitate the delivery of medical care to people for whom it has been relatively inaccessible is a form of political activity that is now recognized to offer substantial mileage to the aspiring politician.

Social Security and Medical Care

We must also recognize the part that proposals to socialize the economy of medicine play in the broad context of social security.

The idea of incorporating medical care in the national Social Security system dates back to the very inception of that system 25 years ago. And I think it reasonable to suggest that medical care would have been incorporated into our Social Security scheme long ago had not our voluntary hospital system and our medical organizations created Blue Cross and Blue Shield as an earnest of their intent to provide medical security through voluntary community enterprise.

Blue Cross and Blue Shield, supplemented by the insurance industry, have succeeded not well enough, and better than they knew!

By this I mean that, from a political point of view, the very success of voluntary prepayment programs in enrolling almost all the elements in the population that can afford to pay for these programs has thrown the spotlight of political interest upon those elements (such as the aged, the chronically ill, and the indigent) who aren't able to participate in the voluntary program on the same terms as their more fortunate neighbors.

The voluntary prepayment programs have succeeded so well that they've given rise to a growing popular conviction that somehow or other this protection must be extended to everyone.

EXTENSION OF MEDICAL CARE TO LESS PRIVILEGED GROUPS

And since some of these less privileged groups in our society either cannot afford to purchase voluntary prepayment out of their own resources, or at least cannot realistically be expected to do so voluntarily, the political interest is beginning to focus with powerful intensity and piercing heat upon these groups.

Aged and retired persons. Of all of them, the groups currently engaging the keenest political interest are the aged and retired. Here the need for community action, in one form or another, is obvious.

Whether, in this special case, the genius of voluntary organization may be able to act once more with sufficient speed and ingenuity to obviate the growing impetus for political action is a question whose answer, I fear, may not be long in coming.

Certainly the challenge of medical security for the aged is one of the most glamorous temptations ever offered the advocates and practitioners of political action. And, at the same time, it presents some of the most complex and baffling problems conceivable to those of us who are determined to meet and solve this challenge by voluntary methods.

However this problem may be eventually disposed of, we may confidently look forward to new challenges of a comparable sort in the early future.

Lower income families. Those whose political fortunes are enhanced by applying government subsidy and compulsory participation to the needs of special groups of voters will find other fabulous fields to cultivate. Perhaps one of the next big segments of the social order that will attract their attention is the family units whose incomes are below $5,000, where, despite the efforts of our prepayment plans, a considerably smaller proportion of people are covered by voluntary medical programs than in the larger income groups.

MEDICAL CARE BENEFITS FOR FEDERAL EMPLOYEES

The provision of prepaid medical care by the U. S. Government through voluntary mechanisms for all its own employees reflects a growing social acceptance of the principle that such protection must and will become universal, that it is no longer considered a "fringe benefit" but a central element in the accepted perquisites of employment.

Parenthetically, the Federal Employees Benefit program will provide the first mass referendum on the choice of the pattern of medical service desired by individual members of a large group. The idea of choice of plan within a group has been growing in many units of industry and labor, but this is the first time a very large number of people of varying skills, and scattered over the entire country, have been invited to choose which of a number of prepayment plans they would prefer to embrace.

We probably can't interpret or even appreciate the significance and political influence of this phenomenon until the results of this referendum are in.

The political groups whose interest and influences are being brought to bear upon medicine and its socioeconomic agencies are legion; and some of their social philosophies which were once generally considered somewhat alien or incompatible with American folkways are rapidly gaining respectability and acceptance among all elements of the electorate.

Moreover, motley and disparate as many of these pressure groups may seem to be, their purposes with respect to medical care seem to be coming into a sharp and powerful focus on the single objective: prepayment for all elements of a complete medical care program from womb to tomb.

What can American medicine and its voluntary medical care agencies do to meet, contain, and satisfy these powerful challenges?

Let's try a special perspective on ourselves. Time was, when Blue Cross and Blue Shield were infants, when there were almost as many hospitals and doctors as there were patients enrolled in these prepayment plans. This was the brief era in which Blue Cross was indeed the "hospitals' plan" and Blue Shield was indeed the "doctors' plan."

But now there are in Blue Shield some 200,000 physicians, perhaps, and some 45,000,000 lay citizens, with thousands more presently to be enrolled.

Two hundred thousand physicians, even if they spoke with one voice, which of course they never will, would be no match for 45,000,000 citizens who now have Blue Shield and umpteen million more who want the protection of prepaid medical care by whatever means they or their political agencies may be able to get it for them.

Only as the profession is able to identify its own interest in prepayment with the increasingly articulate interest of the people in prepayment can it bring the American people into a firm alliance with the profession in their mutual purpose which is so clearly exemplified by the Blue Shield idea.

LABOR'S INFLUENCE ON MEDICINE

One of the most potent political influences in America today is organized labor. The relations between organized labor and organized medicine are full of contradictions, many of which could be resolved if both groups were willing to communicate with each other and to explore their many common interests.

The need for sympathetic contact between these two groups was perhaps never better illustrated than by a column entitled, "How Your Health Dollar Is Dwindling," which appeared recently in a labor paper. The author, Mr. Edward P. Park, presently Education and Research Director of the California Conference of Operating Engineers and a former Director of the State Department of Industrial Relations, referred to the "malignant inflation of the costs of medical care," which, he said, "if unchecked, will certainly stimulate demands for some kind of 'socialized medicine.' " Referring to the effect of rising medical and hospital costs on welfare funds, Mr. Park concluded that "Labor originally negotiated such plans for the benefit of their members and will not re-negotiate such plans solely for the profit of hospitals and physicians."

It seems urgently necessary for medicine to make friendly liaison with labor leaders and discuss the facets of medical economics with them.

Despite organized labor's long-standing ideological commitment to compulsory health insurance, labor now has many practical commitments to Blue Cross and Blue Shield; moreover, labor representatives are intimately involved on the Boards of Blue Cross and Blue Shield Plans, and the unions have enormous investments in union health and welfare programs. In practice, however, this ideological commitment is largely meaningless, and a genuine effort at rapprochement might do much to dispel the mistrust existing between labor and medicine.

Medicine has no genuine conflict with labor, and the antagonisms between them have usually been clearly traceable to misunderstanding or ignorance on the part of one party concerning the motives and problems of the other group.

AMERICAN CITIZEN WANTS "FREE CHOICE"

Perhaps the controlling factor in determining the outcome of the conflict between the private practice of medicine and traditional forms of prepayment, on the one hand, and corporate medicine, ranging from "closed panel" programs through outright state medicine on the other, is the American citizen's attitude toward the free choice of physician. Closed panel groups in California and New York have carried on a continuous propaganda to the effect that their patients cannot safely exercise free choice of physician but should rely upon the panel managers to select their physicians.

Despite all the propaganda designed to discredit the principle of free choice, vast numbers of American patients still are "ornery" enough to insist upon choosing their own physicians.

This phenomenon goes to the heart of our democratic society, and the continuing rebellion against the dictated choice of physician testifies not only to the soundness of organized medicine's loyalty to this principle, but to the vitality of our universal attachment to the basic principles of freedom.

It is desirable, however, sometimes for American medicine to remind itself that "free choice of physician" as a principle finds its ultimate sanction in the interest of the patient rather than of the physician.

Blue Cross and Blue Shield have attained a size and stature which few of us thought possible a decade ago. These plans insure a few less people than all the insurance companies combined, but jointly Blue Shield and Blue Cross pay greater aggregate benefits in terms of dollars than the insurance companies pay.

Bigness in itself makes one vulnerable. A large target is easier to hit and tempts the trouble-maker more than a small target. Blue Shield and Blue Cross also enjoy a privileged status in our society which makes them the envy of their competitors and critics and especially vulnerable to the consequences of their own misdeeds and mistakes.

People expect more of us than of our business competitors, and we must not only impose high standards of conduct upon ourselves but live up to those standards.

SUMMARY AND CONCLUSIONS

Which brings us logically to a summary of the forces that determine political action.

Ours is an imperfect democratic republic. The popular will is frequently confused on almost any issue, but it eventually takes form, and in the long run the popular will is ultimately reflected in legislation unless its objectives are achieved through voluntary action.

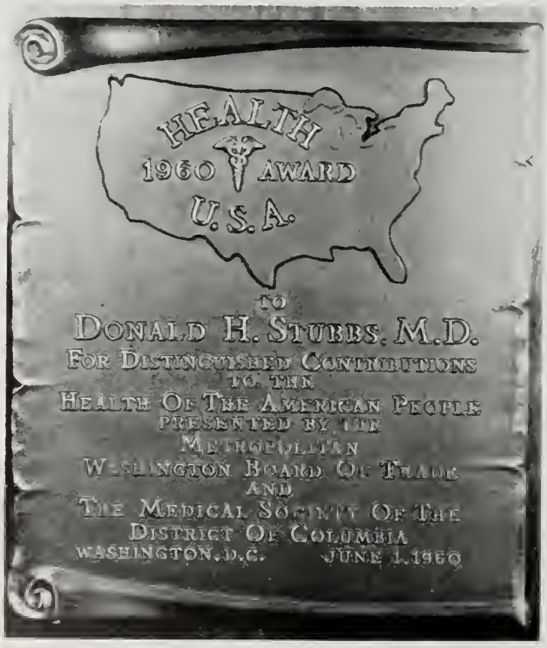
Americans in general are predisposed to favor the private, non-governmental approach to social problems, resorting to legislative public action only when citizens fail to meet their responsibilities or prove incompetent to meet the challenge.

The prevailing motivation for political action is self-interest, and this self-interest is most likely to realize its desires when (1) it represents lots of voters; (2) it can mobilize the support of lots of voters; (3) it can point to clear misfeasance or malfeasance on the part of its opponents; and (4) it can clearly and convincingly identify its purposes with the interests and desires of the public in general, thus making its cause the people's cause.

These factors mean that Blue Shield must constantly improve its service, or find itself under constant political attack.

DR. STUBBS CITED AT "HEALTH—U. S. A." LUNCHEON

Dr. Donald Stubbs, Major General Howard McC. Snyder, and Elmer H. Bobst were honored at the third "Health—U. S. A." Testimonial Luncheon, held at the Hotel Statler-Hilton, June 1, 1960, under the sponsorship of the Metropolitan Washington Board of Trade and the Medical Society of the District of Columbia. The Presidential Ballroom was filled to capacity with Government officials, civic leaders, physicans, and other professional people present to honor the recipients of the awards. The Honorable Arthur S. Flemming, Secretary of Health, Education, and Welfare, gave the principal address.


HEALTH
1960 AWARD
U.S.A.
TO
DONALD H. STUBBS, M.D.
FOR DISTINGUISHED CONTRIBUTIONS
TO THE
HEALTH OF THE AMERICAN PEOPLE
PRESENTED BY THE
METROPOLITAN
WASHINGTON BOARD OF TRADE
AND
THE MEDICAL SOCIETY OF THE
DISTRICT OF COLUMBIA
WASHINGTON, D.C. JUNE 1, 1960

"HEALTH—U. S. A." AWARD presented to Dr. Stubbs

The awards, in the form of bronze plaques, were presented to the honorees by Dr. Victor R. Alfaro, President of the D. C. Medical Society.

Dr. Stubbs was described by Dr. Alfaro as "a distinguished anesthesiologist" who has "found time to become perhaps the most articulate and well-known spokesman for voluntary health insurance in this Nation." Dr. Stubbs is Chairman of the Board of Directors of the National Blue Shield Plans, President-elect of the Medical Society of D. C., and Past President of Medical Service of the District of Columbia, Washington's Blue Shield Plan.

In accepting the award, Dr. Stubbs responded that he felt joined "to so many who have wrought the great result which has brought us together." He mentioned Dr. Norman Welch, whom he succeeded as Chairman of National Blue Shield and who is now Speaker of the House of Delegates of the AMA; Dr. James A. Daugherty, President of Blue Shield; and Mr. James E. Stuart, President of Blue Cross. "The great family of Blue Shield," he said, "is composed of one-fourth of all our people, a number perhaps seeming more significant if we note that it is about one-fourth again larger than the greatest number who have ever supported a candidate for President.

"I am pleased that here in our Capital City virtually all of our physicians and all of the hospitals of the area coöperate with more than half of the total population to embrace this program of service, not dollars, with local control, not profit, but solely to aid in providing health care."

After citing some significant accomplishments of Blue Shield, he closed by stating that he chose to express a major condition for accepting the award:

"Magnificent though the achievement has been, I believe that all of us here and the thousands of doctors and their millions of patients everywhere look hopefully toward a giant expansion in the value of prepayment for health care, not in the years but in the months ahead. This we must produce. We must do it not only because it is our obligation as free men, but because success here will be another dramatic proof of the superiority of voluntary effort."

After lauding General Snyder as "an outstanding leader in public life who symbolizes dedication to this country's flag and to the creed of medicine," Dr. Alfaro listed, in the short time at his disposal, some of General Snyder's outstanding posts. These included Medical Advisor of the National Guard of the United States, Assistant Inspector General of the War Department, Chief Medical Officer at Supreme Headquarters Allied Powers Europe, and his present role as Physician to President Dwight D. Eisenhower. Of special note throughout the past ten years have been his enormous contributions to the historic Conservation of Human Resources Project of Columbia University, which President Eisenhower initiated when he headed the University and has followed through to such great success.

The third recipient, Mr. Bobst, was cited as "a great organizer and a generous philanthropist for the American Cancer Society and other worthy causes." Mr. Bobst is Chairman of the Board of Warner-Lambert Pharmaceutical Company and has also figured in the growth of the Hoffmann-LaRoche Company. An elder statesman of the industry, he is universally respected by his colleagues.

A highlight of the luncheon program was the reading of a congratulatory message from the President of the United States.

General Chairman of the Award Committee was Julius N. Cahn, Director of Medical Research Project, U. S. Senate Committee on Government Operations. Mr. Cahn introduced the guests of honor and opened the program.

"HEALTH—U.S.A." AWARD TO DR. STUBBS

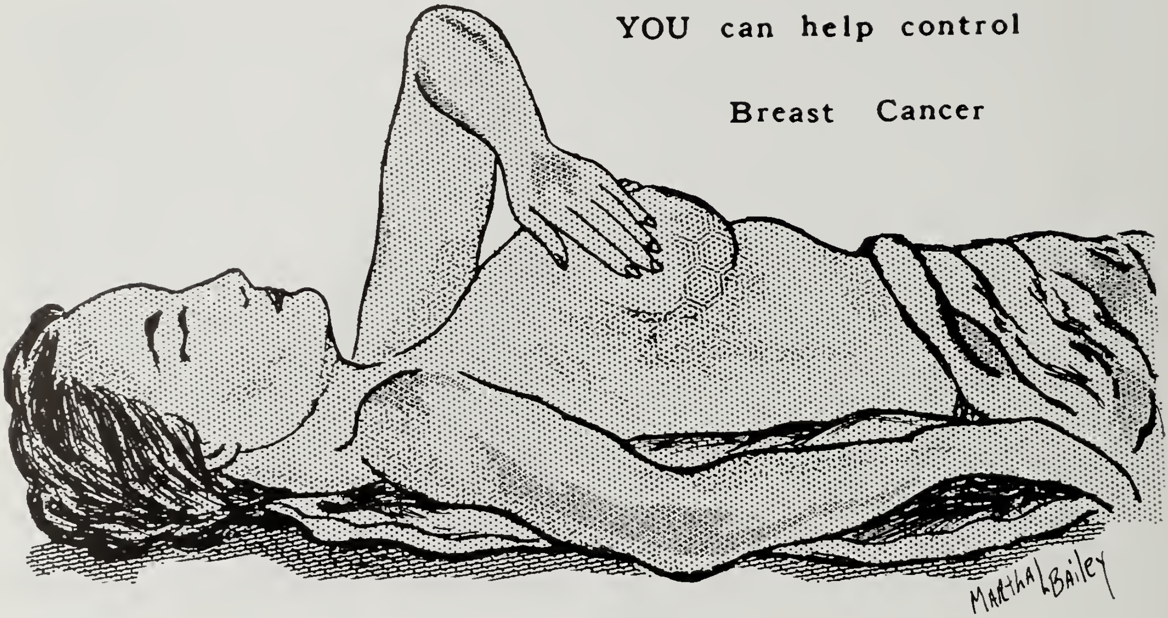
Dr. Donald Stubbs (left), Chairman of the Board, National Blue Shield, accepts the "Health—U.S.A." plaque from the Medical Society's President, Dr. Victor R. Alfaro, at the luncheon at the Hotel Statler-Hilton, June 1, sponsored by the Metropolitan Washington Board of Trade and the D. C. Medical Society.

Dr. Alfaro and E. K. Morris, President of the Washington Board of Trade, were Honorary Chairmen of the "Health-U.S.A." Award Committee. Members of the Executive Committee were Ralph E. Becker, Director of the Washington Board of Trade, Chairman, and Drs. W. LeRoy Dunn, Oscar B. Hunter, Jr., and Richard T. Sullivan. Dr. Sullivan is presently Chairman of the Public Health Committee of the Washington Board of Trade.

DOCTOR!

YOU can help control

Breast Cancer



By teaching your patients

BREAST SELF—EXAMINATION

The breast is the number one site of cancer in the human female. Small primary cancer, limited to the breast, is highly curable. Because physical examinations by the physician are impractical every month, you should teach every patient how to examine her own breast monthly after the menses. Biopsy of any lump found in the breast will confirm the diagnosis if cancer is present.

YOU CAN OBTAIN—

Leaflets on "Breast Self-Examination" for your patients; a Monograph, Cancer of the Breast, for your use. Films: "Breast Self-Examination" for women's groups and "Cancer of the Breast, Problems of Early Diagnosis" for professional groups.

Call or Write

American Cancer Society
District of Columbia Division, Inc.
810 18th Street, N.W.
Washington 6, D.C.
EXecutive 3-3690

MEDICAL LEADERSHIP FOR SCHOOL HEALTH SERVICES

HAROLD H. MITCHELL, M.D.*

Gaithersburg, Maryland

The medical profession has a splendid record of leadership with respect to communicable disease in the schools. For other phases of school health services the record is not so good.

As communicable diseases have required less and less school health service attention, the tendency throughout the country has been for medical leadership to decline in its influence upon school health service policies.

A Good Idea Goes Wrong

It seems paradoxical that medical leadership should have been responsible for starting an idea for school health services and then have had so little influence upon the way it has been carried out. The idea of conducting health examinations in schools to discover the children who might benefit from medical attention originated with the medical profession. In the early development of public health practice this idea was excellent because it led to remedial treatment of children who had little or no medical attention. It demonstrated the importance of attention for apparently well children. Demonstrations, promotion and education regarding health examinations were very much in order when pediatrics was so much concerned with acutely ill children. But this good idea became overextended. It attempted too much. Unreasonable demands were put upon physicians in the schools. When the examinations were no longer worthy examples of medical service, we lost sight of our goals. The requirement of an examination for every child every year was even enacted into law in many states before it was realized what "examinations" would cost and what may be their limitations. No wonder snap judgment and assembly-line "examinations" confused the issue of what physicians can and cannot accomplish through the schools.

During this period when school and public health authorities were attempting too much by a mass production approach the medical profession had very little influence upon policies. The big issue over whether health departments or schools should have jurisdiction muddied the waters considerably when planning on policies was attempted at the national level. But the biggest mistake was the assumption that all health services could be doled out like immunization shots to every child. Health departments were slow in developing any school health services except in the larger cities. School authorities, on the other hand, employed physicians as examiners or inspectors and set a pattern in a large proportion of the schools.

Medical leadership on other problems of public health continued in health departments, but even the more vigorous medical leaders in the larger health departments were not able to enlist much medical interest or support in the search for physical defects. All too often the physician in the schools was relegated to the status of an employee in a big system because of the routine pattern of search for physical defects instead of the respected position of a physician who is consulted for advice concerning the welfare of an individual child.

A Low Point

A particularly low point in the hurry to find defects was the period of nearly two decades when schools struggled with a mass production idea without medical help. This was the attempt to screen for malnutrition by the use of the height-weight-age tables. This scheme widened the gap between the medical profession and those who were trying to develop a sound pattern of school health services.

The Search for Defects

The focus on a defect instead of medical guidance and the need for health supervision got completely out of hand during the twenties, when tonsillectomy was so much overdone. The *reductio ad absurdum* was demonstrated when in 1933 the Research Division of the American Child Health Association reported: "Eleven-year-old children exposed to 4 medical examinations by school medical examiners have a probability of 935 out of 1,000 of being recommended for tonsillectomy. With 4 successive examinations such as an ordinary school examination, only 65 out of 1,000 11-year-olds would escape recommendation for tonsil removal." In this big system where the physician was a cog in a machine at that time and had never had an opportunity to express any interest in policies, it was presumed that the examination in school was a recommendation to the public health nurse to advise medical attention. However, a wrong focus upon a tonsil defect led to the assumption that the tonsils interfered with the child's health. This resulted in the parent starting off to get the tonsils out. This research found 61 per cent of the children had had a tonsillectomy, and in the higher economic areas there were 75 per cent with tonsils out.

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* Administrator, School Health Services, Health Department, Montgomery County, Maryland, from 1951 to 1958; Director of School Health, Board of Education, Montgomery County, 1947–51.

The fact that the pattern of routine examinations and search for defects has a tendency to be interpreted as a diagnostic school service is a problem that has generally had too little consideration. Any emphasis upon a suspected physical defect generally leads parents to believe there has been a medical diagnosis. No matter how carefully the notices of defects to parents are worded, parents are likely to assume that the school health service has made a diagnosis.

One trouble with the search for physical defects has been that a third party is interposed between the physician responsible for diagnosis and treatment and the parent who also has responsibilities for the child. Whether the third party is a well qualified physician, the nurse, or the teacher, he is on unsound ground in attempting an accurate detection of defects. The problem is not merely one of attempting to examine too many children with a limited staff and time and without the parent present, but the responsibility for diagnosis and treatment must go together, and that is not the function of the health department or schools.

Nurse Follow-up

When the follow-up of the public health nurse meets resistance in convincing a parent that a child needs medical attention, she is on dangerous ground to mention a physical defect in attempting persuasion. She has no authority to support her. If there is already a close doctor-family relationship, the nurse usually has no difficulty in persuading the parent to seek medical attention for the child. But lacking such doctor-family relationship the nurse needs help from a "school medical adviser" as distinguished from a physician to search for physical defects.[1] Then she may assure the parent how the needs of the child can be planned for by her own physician consulting with the medical adviser for the school. Such joint planning can often be very reassuring to parents, but it cannot be suggested unless administrative plans are made for the school medical adviser to discuss the case with the private or clinic physician. This need for exchange of information is important not only because of the possibility of different medical opinions but because so frequently the doctor-to-doctor talk on the phone makes more medical data available so that the school, the parents, and family physician can plan together for the child. Such communication improves the understanding of the child's problem, which may be related to school achievement and adjustment. It avoids misunderstanding and the confusion that come from conflicting opinions. It strengthens the doctor-parent-child relationship. To expect the nurse to make all the decisions involved in medical guidance without the help of any medical liaison with the physician, who is responsible for diagnosis and treatment, is to expect the impossible.

Policies and Goals

These comments on trends, history, and difficulties of bringing a medical point of view to school health service policies come from the writer's experience and observations. They do not come from knowledge of the program in the District of Columbia. They are problems faced by most physicians with administrative responsibilities for school health services.

School health services are a field of social medicine in which the medical profession has a big stake because of its potential influence upon medical practice. The services should supplement and assist medical practice. They should contribute to public education on the value of medical service, health supervision, and the doctor-patient relationship. They should bring children to medical attention who might otherwise suffer medical neglect. On the other hand, when policy decisions lose sight of these goals, there may be confusion and a false sense of security. There may be confusion as to what people can do for themselves, what they need to be taught, what help is needed to supplement what they do not do, and what indigent and low income people cannot do.

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[1] Mitchell, H. H., and Peeples, W. J.: Newer concepts of school health services. J.A.M.A., 1959, **171**, 2060.

Medical Society Participation

These principles and problems have long been the concern of the Medical Society of the District of Columbia. The efforts of the Subcommittee on Child Welfare of the Public Health Committee are today being rewarded by new understandings and exchanges between the Medical Society representatives, the Health Department, and the public school administration. This participation comes from a new and essential type of organization that is still lacking in many communities. It represents a great achievement for the medical profession, the Health Department, and the schools. It provides the administrative machinery so it is possible for the Medical Society to have influence upon school health policies. With adequate support of the Subcommittee on Child Welfare there is a splendid promise for the future. Not every physician needs to be involved in details of this complex problem. He does need to know who is representing him on this Committee, to be informed on matters of policy, and to spread the word so that there may be community support of the service.

National Leadership

The Medical Society of the District has an advantage today because of the contributions of the AMA and the American Academy of Pediatrics to general principles and policies for school health services that have been developed since the last War. Such medical organizations, particularly, have been interested in the impact of school health services upon medical practice. The National Conferences on Physicians and Schools sponsored by the AMA have demonstrated how essential it is that principles and policies be worked out on a coöperative basis between physicians and public health workers and educators. They have recognized too the importance of an administrative set-up such as we now have in the District. These Conferences have also made clear that no physician can prescribe for his community as he prescribes for his patients. Each community is different and will require its own school health policies and procedures just as each patient requires an individual diagnosis and treatment.

A Large Opportunity

So we see that the Subcommittee on Child Welfare still has a large job ahead of it. It will be helped in achieving medical leadership if its work is appreciated. Obviously, physicians who serve children will benefit from the work of this Committee. But medical leadership for school health services has far-reaching significance for the whole medical profession. This is important to the larger problem of medical leadership, which, it is now well recognized, requires a positive approach in order to be effective against the mischievous doctrine of health insurance by the Federal Government. We believe and declare in the Principles of Medical Ethics that medical leadership involves "activities which have a purpose of improving both the health and the well-being of the individual and the community."

Medical leadership for school health services will certainly win good will and earn public esteem for the profession when we make constructive contributions to this essential public health service. Never before have people been so health-conscious and so concerned about what goes on in the schools. It is, therefore, most opportune that the Subcommittee on Child Welfare is now able to work so effectively with the health department and the schools.

R.F.D. 2

On the Lighter Side

The 1959–1960 duckpin bowling season of the D. C. Medical-Dental Bowling League came to a fitting and proper close on May 19, 1960 with a bang-up banquet at Jack Davis' Steak House on Brookville Road, Chevy Chase, Md. There was a 3-piece musical combo present to play and sing all the many requests that came their way, and our good friend, Ted Wiprud, to give the occasion dignity and authenticity. Prizes to the first 5 teams consisted of pieces of paper on which these words appeared, "Pay to the bearer . . . , etc." There were also similar prizes distributed to bowlers who, because of their personal and individual achievement, were tops in their category.

The final standings of the teams, and the individual records are as follows:

Team Standings

Place	Team	HG	HS	Won	Lost	Pinfall
1	Sibley #1	610	1685	64	35	52,664
2	Sibley #2	612	1723	59	40	51,691
3	Garfield	590	1709	56	43	50,903
4	Children's	630	1780	55	44	52,955
5	Columbia	584	1619	55	44	50,683
6	Suburban	607	1729	54	45	52,416
7	Providence	595	1632	52	47	50,167
8	Emergency	561	1628	52	47	49,490
9	Doctors	570	1557	52	47	49,049
10	Beta	555	1591	51	48	48,261
11	Casualty	523	1532	46	53	44,551
12	Alpha	558	1568	38	61	42,996

Individual Records

Team	G	Sp	St	HG	HS	Avg.
ALPHA						
Kogan	79	120	32	128	338	99—25
Bouchard	90	118	41	137	348	98—31
Molnick	78	132	39	141	374	103—73
Weisberg	65	109	36	150	353	102—11
LeBlanc	54	83	26	139	351	101—15
BETA						
Douglas	87	101	25	115	317	95—10
Shiflet	87	111	37	132	356	97—64
Bowie	75	111	27	122	344	98—59
Berman	74	134	30	129	338	101—43
M. Silverman	72	104	34	148	373	101—55

Individual Records—Continued

Team	G	Sp	St	HG	HS	Avg.
CASUALTY						
Canton	77	97	34	128	319	97—57
Dibbs	87	118	27	125	328	93—81
Zukerman	75	104	40	137	346	100—50
Abramson	70	92	25	122	339	98—24
Miller	69	80	21	133	329	93—21
CHILDREN'S						
Bacon	96	137	57	139	347	99—47
Kessler	95	199	50	144	384	108—83
MacDonald	84	225	38	169	403	113—8
Kay	81	159	45	161	391	108—50
Resta	78	165	46	160	412	110—13
Eig	36	92	10	144	371	111—10
COLUMBIA						
Kadan	80	178	45	151	386	108—65
C. Reeves	89	169	57	152	390	108—15
Hodge	87	152	38	145	354	102—49
Connolly	84	118	35	141	344	97—81
McDonald	76	99	36	125	333	99—22
Sealfon	71	76	34	120	312	96—46
DOCTORS						
Brown	68	118	46	138	349	103—66
Carter	88	108	40	133	319	96—35
Perkins	86	130	50	133	367	102—64
Golden	74	86	31	129	349	96—40
Thomas	71	86	40	129	350	99—53
C. Silverman	54	78	23	130	326	99—10
EMERGENCY						
Henesy	85	139	38	146	343	101—62
Brawner	85	136	37	139	337	102—17
Schumacher	84	102	37	136	347	101—63
Hawfield	81	153	43	152	358	105—17
Sager	73	83	20	132	325	93—12
GARFIELD						
Klein	76	110	22	136	333	96—37
Cosimano	95	146	51	161	375	102—9
Oberman	90	162	46	134	343	103—26
Cushard	89	169	52	150	403	106—86
Tehan	78	141	33	131	335	104—5
Hughes	55	80	25	139	346	101—19
PROVIDENCE						
Crain	93	206	70	147	369	111—82
Rutstein	93	213	63	154	386	112—2
Heiges	85	106	33	145	334	95—33
Cashman	81	101	24	127	324	94—74
Kane	42	43	17	138	328	93—33

Individual Records—Continued

Team	G	Sp	St	HG	HS	Avg.
SIBLEY #1						
Baiers	96	256	66	159	394	117—21
Richardson	99	174	66	145	388	106—31
Finnegan	96	153	46	150	365	103—33
Ball	95	200	54	153	384	107—90
Belair	90	132	28	130	351	98—70
SIBLEY #2						
McLain	84	153	47	137	361	106—6
Van K	99	246	62	149	402	112—89
Hageage	87	183	44	176	408	108—1
Kirchner	82	117	39	126	340	98—47
Grubb	66	83	28	130	349	97—39
Morse	63	106	25	133	355	103—16
SUBURBAN						
Betz	99	256	61	156	388	113—89
Porton	99	154	57	139	377	102—33
Andrews	99	135	43	128	335	99—38
Ottman	99	189	58	141	382	105—90
Meyer	81	180	58	147	386	112—50
SUBSTITUTES						
Aronson	11	19	3	105	300	96—3
Castro	12	14	7	121	326	100—10
Cercell	20	33	6	140	355	100—18
Clark	8	8	5	124	315	100
Cook	15	20	3	109	297	92—8
D. Crain	9	14	5	102	305	90—6
D'Angelo	27	47	9	133	348	103—12
Dorman	9	7	0	102	274	85—7
Gruver	33	50	12	117	307	97—11
Hand	6	9	2	122	310	100
Hazard	3	0	0	75	201	67—0
Hopkins	9	12	6	128	313	100—2
Keren	24	25	6	121	296	88—9
Lloyd	3	3	2	118	297	99
Madden	6	8	2	108	296	95—4
Paige	3	1	0	88	254	84—2
Photakis	12	17	6	124	335	103—10
Price	3	4	0	111	293	104
Quayle	8	7	3	126	334	91—3
Rapee	3	8	3	120	343	114—1
G. Reeves	9	12	0	107	272	87—7
Richtmeyer	50	92	29	145	354	106—21
Taylor	3	5	0	101	287	95
Tilley	48	74	19	129	323	108—29
Young	6	4	2	106	286	91

CHUCKLE NOTE: Don't fall in love with the chiropractor, Mother dear; he is only pulling your leg.

J. EARL KADAN, M.D.

GEORGETOWN RESIDENCIES IN PSYCHIATRY

Georgetown University Medical Center has available several residencies in psychiatry for general practitioners and other physicians in practice. Expanded grant support is offered at an adequate level to stimulate interest in qualified physicians who wish to become psychiatrists.

Training stipends, appropriated by the National Institute of Mental Health, are granted for the 3 years of the residency program. The amount of the grants, obtainable at a yearly $12,000 maximum, is determined by previous professional training, marital status, size of family, etc. The majority of applicants ordinarily would qualify for the maximum stipend.

The Georgetown Department of Psychiatry is approved by the American Psychiatric Association for 3 years of training, leading to Board certification. In this unique and challenging program, intensive and varied experience is afforded by the utilization of the psychiatric facilities of Georgetown University Medical Center, District of Columbia General Hospital, and Mount Alto Veterans Administration Hospital. Training is provided the resident through a carefully planned program which includes basic didactic material, inpatient and outpatient services, research, individual supervision, conferences and seminars, and clinical experience in psychosomatic medicine, child psychiatry, consultations and neurology.

To be eligible for this program a physician must have been in practice for a minimum of 4 years following internship (which may include time in the armed forces or residency training in some specialty other than psychiatry). Additional requirements are graduation from an approved medical school, 1 year of approved internship, and American citizenship.

Applicants should contact Dr. Richard A. Steinbach, Department of Psychiatry, Georgetown University Medical Center, 3800 Reservoir Road, N. W., Washington 7, D. C. Applications submitted by August 15, 1960, will be considered for the residency program starting July 1, 1961.

News and Personals

MEETINGS

The Third International Congress of Physical Medicine will convene in Washington, D.C., August 21–26, with headquarters at the Mayflower Hotel. Diagnosis, prevention, and treatment of physiatric diseases and disabilities will receive consideration at the scientific meetings. Subdivisions of this theme, to be considered at separate sessions, are diseases of the skeletal muscles, arthritis and collagen diseases, neuromuscular diseases, aftercare of acute trauma to neuromuscular and musculoskeletal systems, congenital defects causing physical disability, scoliosis, aftercare of amputations, and geriatrics.

The tenth annual John Stanley Coulter Lecture will be delivered by Dr. Philippe Bauwens, of London, who will speak on "Electrodiagnosis Revisited."

Papers will be presented by physiatrists from Czechoslovakia, Denmark, England, Germany, Israel, Poland and Russia. In addition, special lectures will be presented by outstanding physiatrists from the United States.

Dr. Charles B. Shields, of Washington, heads the social functions committee. The International Banquet in the Grand Ballroom of the Hotel Mayflower will climax the session.

Dr. Frank H. Krusen is President of the Congress. Mr. Bernard M. Baruch, philanthropist and patron of physical medicine, will attend the Congress as a special guest. He celebrates his 90th birthday two days before the Congress convenes on August 21.

GENERAL NEWS

The Executive Board of the Medical Society of the District of Columbia met May 23, 1960, with Dr. William Ross Morris, Chairman, presiding. The Secretary was authorized to purchase and install a change machine in the lobby of the Society's building for the convenience of those who wish to place telephone calls while attending meetings.

Dr. James E. Chapman, Chairman of the Committee on Emergency Medical Service of the Washington Metropolitan Area, was requested to represent the Medical Society at the annual meeting of the Health and Welfare Committee, U. S. Civil Defense Council, to be held in Minneapolis, Minnesota, September 21 and 22.

Dr. Jack Kleh was appointed to succeed himself as a representative of the Society on the Board of the Health and Welfare Council of the National Capital Area.

The Board voted to request the District Commissioners to appoint a physician to its new Board of Appeals and Review, which is to be made up of six attorneys and six private residents. Recommended particularly for this post was Dr. S. Hazen Shea.

In accord with the wishes of the Board of Credentials, a motion was made and carried that in the event a member of the Society is suspended by the Executive Board, the Chairman of the Section and/or committee of the Society of which he is a member be notified of the action, since he is no longer entitled to the benefits of membership in the organization.

The Department of Medical Motion Pictures and Television of the American Medical Association offers a revised list of films available from its Motion Picture Library upon request. The new catalog lists 175 medical films suitable for showing to medical societies, hospital staff meetings, medical students, and other scientific groups. In addition there are 81 health films of interest to physicians who may be called upon to speak before lay audiences.

The Board of Trustees of Medical Service of D. C. reëlected its officers at its meeting, May 20. They are: Dr. James A. Dusbabek, President; Dr. Henry L. Darner, First Vice President; Robert M. Holmes, Jr., Second Vice President; Bruce Baird, Treasurer; George B. McGovern, Secretary; and Dr. A. Clagett Gray, Assistant Secretary.

At the Annual Meeting of Participating Physicians, April 27, Dr. C. Willard Camalier, Jr., was elected to serve on the Board of Trustees, succeeding Dr. Ernest A. Gould.

The Section on General Practice of the Medical Society of the District of Columbia held election of officers on May 24. The new officers are:

Dr. Samuel Diener, *Chairman*; Dr. Lewis A. Klein, *Vice Chairman*; and Dr. Charles P. Ryland, *Secretary-Treasurer.*

The new incumbents will take office in January 1961.

The Section on Dermatology of the D. C. Medical Society elected Dr. Marc Weiner Chairman for 1960–61 at its meeting, May 26. Dr. James Q. Gant was elected Secretary.

The following officers will serve the **Women's Medical Society of the District of Columbia** during 1960–61:

Dr. Charlotte Donlan, *President*; Dr. Lois I. Platt, *President-elect*; Dr. Alice Chenoweth, *Recording Secretary*; Dr. Gloria Cochran, *Corresponding Secretary*; and Dr. Ella F. Andrews, *Treasurer.*

The American Association of Physical Anthropologists held its 29th Annual Meeting at Howard University College of Medicine, May 12–14. At the annual dinner, held in Baldwin Hall, the Honorable Arthur S. Flemming, Secretary of the Department of Health, Education, and Welfare, delivered the principal address on "Meeting the Needs of the Aging."

The 118 registrants who attended represented 27 states and 8 foreign countries as well as 39 educational institutions and 10 scientific institutions or organizations. Dr. W. Montague Cobb, Professor and Head of the Department of Anatomy at Howard University, was Chairman of the local Committee on Arrangements. He is the immediate Past President of the Association.

At the opening session the Honorable David B. Karrick, member of the Board of Commissioners of the District of Columbia, presented a key to the City to Dr. William Walter Greulich, President of the Association, who is Professor and Chairman of the Department of Anatomy at Stanford University.

Dr. T. Dale Stewart, of the Smithsonian Institution, was chosen to succeed Dr. Edward E. Hunt, Jr., of Boston, as Secretary-Treasurer.

The Allergy Foundation of America has awarded $600 **summer scholarships** for 1960 to 30 students of medical schools throughout the United States and Canada so that these students may spend 8 to 12 weeks in obtaining supervised training and experience in both clinical and research allergy. This is the largest number of these awards made by this Foundation during any year since the scholarship program was begun in 1956.

The students selected were nominated by the Deans of their respective medical schools in collaboration with the heads of the basic science departments at these institutions.

Three medical students in the District of Columbia will benefit by these scholarship awards. William Bondareff, of Arlington, Va., a second year student at Georgetown University School of Medicine, will study under the supervision of Dr. Roy E. Ritts, Chairman of the Department of Microbiology and Tropical Medicine, on an "investigation of the allergic response of the rat nervous system to tetanus toxin."

Dr. Halla Brown, Associate Professor of Medicine and Chief of the Allergy Clinic, George Washington University Hospital, will supervise the studies of Mohammed Akbarian, of Tehran-Iran, who is in his third year at George Washington University School of Medicine. Mr. Akbarian will devote his studies to "allergic drug reactions, immunization with whole hymenoptera and a comparison of bee venom and horse serum in sensitization of guinea pig."

The third Washington student is Mrs. Eula F. Perry, who is in her third year at Howard University School of Medicine. She will study, under the supervision of Dr. Roland B. Scott, Head of the Department of Pediatrics, "sweat electrolytes in allergic individuals."

Dr. Benjamin B. Wells, Director of Medical Education Service for the Veterans Administration in Washington, D. C., has been appointed the VA's Assistant Chief Medical Director for research and education in medicine. He succeeds Dr. John B. Barnwell, who retired in March. Dr. Wells is a diplomate of the American Board of Pathology and the American Board of Internal Medicine. He was formerly Dean of the University of Arkansas School of Medicine and has been the agency's Director of Medical Education Service since July 1958.

Attorney Walter N. Tobriner, President of the Washington Board of Education, has been elected **President of the Board of Trustees of the Washington Hospital Center.** He succeeds Samuel Spencer, former District Commissioner. Mr. Tobriner has been on the Center's Board since its formation. Earlier he had been a member of the Board of Garfield Memorial Hospital and was President of the Board when the Hospital merged with Emergency and Episcopal to become the Hospital Center.

PERSONALS

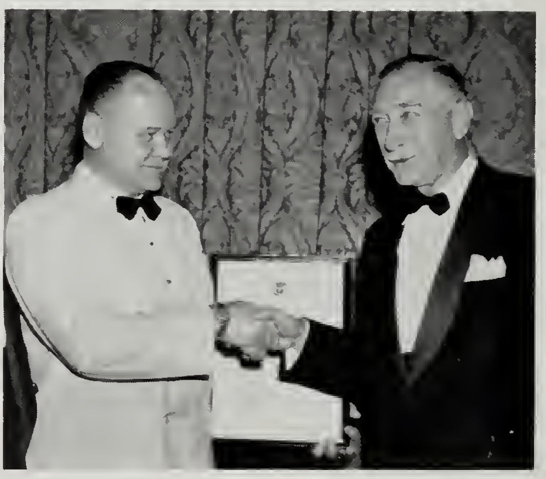
Dr. Frederick A. Reuter, Washington urologist, received the 1960 Award of Merit of the George Washington University Medical Alumni Association at its annual banquet at the Mayflower Hotel, May 28. The award, which is presented annually to a person "who has distinguished himself in the field of medicine and its allied branches," was conferred upon him by Dr. Frederick Y. Donn, President of the Association.

Dr. Reuter received his medical degree from George Washington University in 1916. During World War I he served as a Captain in the Army Medical Corps, returning afterward to Washington to do graduate work in urology. He was a member of the faculty of the University's School of Medicine for 36 years, until his election to the Board of Trustees in 1958. From 1940 to 1958 he served as Executive Officer of the Department of Urology.

Another award made at the dinner, which was attended by some 200 medical alumni of the University, was the Oscar B. Hunter Award, presented to the senior student in the School of Medicine who has the most outstanding record in pathology. The winner this year was Mr. Julius Morton Goodman of Silver Spring, Md.

Speaker for the evening was Mr. J. Burke Knapp, Vice President of the International Bank for Reconstruction and Development.

Dr. Henry P. Laughlin, an Associate member of the Medical Society of the District of Columbia, was reëlected Chairman of the Modern Founders of the American Psychiatric Association at its annual meeting in Atlantic City, May 11. The Founders were originally so designated because of their substantial efforts and contributions in support of the establishment of the APA Central Office in Washington, D. C. They have continued to function as a service group. Dr. Laughlin received a purple and gold Founders' rosette and a certificate expressing the Association's gratitude and recognition of his services to the Association, his colleagues, and to psychiatry.



DR. REUTER RECEIVES MERIT AWARD

DR. FREDERICK A. REUTER (right) receives from DR. FREDERICK Y. DONN, President of the George Washington University Medical Alumni Association, the 1960 Award of Merit at the Association's Annual Banquet at the Mayflower Hotel, May 28.

Dr. Laurence H. Kyle was elected to membership in the Association of American Physicians at its annual meeting in Atlantic City, N. J., May 3-4.

Dr. Kyle is Professor and Chairman of the Department of Medicine at Georgetown University School of Medicine.

Dr. Elizabeth Parker won for herself lay recognition and the warm praise of colleagues upon the release of her first book, "The Seven Ages of Woman," published by the Johns Hopkins Press. The book made its debut at an autograph tea held in May in the executive dining room at Woodward and Lothrop. Present were many friends and colleagues.

Dr. Parker is a pioneer in the field of female endocrinology. A native of Georgia, she taught mathematics and biology before beginning her medical studies at George Washington University. After graduating in medicine in 1932, she interned at the Hospital and also completed a residency in pathology. Beginning in 1934 she continued on the teaching staff as Clinical Instructor in Obstetrics and Gynecology for many years. In 1944–45 she served as Second Vice President of the D. C. Medical Society.

She was married to the late Dr. Paul Bartsch, internationally known biologist, formerly Professor of Zoölogy at George Washington University and curator emeritus of the Smithsonian Institution. Dr. Parker and her husband developed Lebanon, a 450-acre home overlooking the Potomac near Lorton, Va., as a wild-life sanctuary.

The following members of the Medical Society of the District of Columbia were elected to fellowship in the American College of Physicians during the annual meeting of the College in San Francisco, April 4–9: **Drs. Leonard B. Berman, Roy Hertz, Emile C. Nash and Bruce I. Shnider;** elected to associate membership in the College were **Drs. C. David Cooper, Thomas E. Curtin, Philip R. James, George A. Kelser, Jr., Richard J. Meyer and Stanley M. Silverberg.**

Dr. Bruce I. Shnider, Assistant Professor of Medicine, Georgetown University School of Medicine, was elected to active membership in the American Association for Cancer Research, April 7.

ELIZABETH PARKER, M.D.

Drs. James M. Frawley and Robert Earl Stadelman were certified in April by the American Board of Obstetrics and Gynecology.

Dr. Robert H. Parrott has been elected to the Board of Trustees of the National Cystic Fibrosis Research Foundation.

Among 15 business and professional men recently elected trustees of the Catholic Youth Organization of Washington were **Drs. Henry H. Canton, John P. D'Angelo, Albert F. Fleury, Frank S. Pellegrini, and Mitchell W. Spellman.** All are Active members of the D. C. Medical Society except Dr. D'Angelo, who is an Associate member.

ALLOCATION OF MONIES BY HEALTH AGENCIES

In view of the interest of many of our members in the disposition of funds raised by voluntary health agencies, the following table, which has just been received in the Medical Society's offices, will be informative.

*How Major Voluntary Health Agencies Spend Their Money**

Name of Agency	Funds Raised	Fiscal Year Ending	Percentage of Funds Spent in Last Budget Year					
			Medical Treatment	Research Grants	Lay & M. D. Education	Community Services	Fund Raising	Other Purposes
National Foundation	$34,000,000	1/31/59	53	12	11	7	13 (4.7†)	4
American Cancer	30,373,000	8/31/59		30	28	24	10	8
National Tuberculosis Christmas Seal	25,955,390	3/31/59	2	3	34	24	15	22
American Heart	24,004,865	6/30/59		37.5	22.5	14.5	13	11.8
National Society for Crippled Children and Adults	16,791,850	8/31/59	60.3‡	2	7.4	3.3	15	12
United Cerebral Palsy	9,508,000	9/30/59	35	7	13	29	11	5
National Association for Mental Health	5,510,470	12/31/59		22	38	19	7	14
Muscular Dystrophy Association of America	5,508,618	3/31/59	22	42	10	7	13	6
Sister Elizabeth Kenny Foundation	4,975,000	12/31/59	47	16	24	1	9	3
Arthritis & Rheumatism Foundation	3,605,612	6/30/59	30	29	11		14	16

* Compiled by the American Association of Fund-Raising Counsel, with the coöperation of the agencies. Since there is no standard form of accounting, these reports are not necessarily entirely comparable.

† Headquarters only.

‡ Includes sizable expenditures classifiable also as "Community Services."

AMERICAN REGISTRY ASSOCIATION OF DOCTOR'S NURSES

The American Registry of Doctor's Nurses, 1366 National Press Building, Washington, D. C., was charged a year ago by the Federal Trade Commission with misrepresenting that it is a nonprofit organization, and with giving customers the means to misrepresent themselves as registered, graduate or licensed nurses.

Ralph Z. Bell, individually, and Robert L. S. and Evelyn W. Bickford, individually and as officials of the corporation, also were cited in the FTC's complaint.

The respondents were charged with selling memberships in the organization, insurance policies, certificates, pins, emblems, and other insignia and indicia to persons employed in doctors' offices.

The complaint charged that their business is not a nonprofit organization of professional nurses, as implied by the trade name, but is purely and simply a money-making operation conducted solely to sell these items.

Contrary to the trade name and claims in promotional material, the complaint continues, the business operation is not a certifying, accrediting or qualifying body; and the respondents have no authority and are wholly incompetent to establish requirements for doctors' nurses or to certify that applicants have met such requirements.

The pin and certificate, as well as the respondents' other articles, imply that members are registered, licensed or graduate nurses, although actually many are not, the complaint stated. Thus, it adds, such members are given the means to misrepresent their professional or occupational status.

Following the FTC complaint the organization changed its name to the American Association of Doctors' Nurses and in a news release stated that "The American Association of Doctors' Nurses . . . has assumed the membership of the old American Registry of Doctor's Nurses." The headquarters' address given in the release was Suite 800, American Building, 1317 F Street, N. W., Washington 4, D. C.

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Information and Education, through which requests for speakers for lay groups, including radio programs, can be filled.

Date	*Speaker*	*Subject or Title*	*Organization*
May 17	Dr. John A. Kneipp	Types of Psychiatry	Inga's Angle, WRC-TV
May 18	Dr. Paul R. Wilner	Medicine as a Career	Coolidge High School Seniors
May 23	Dr. Bela Gondos	X-ray and X-ray Diagnosis	Inga's Angle, WRC-TV
May 24	Dr. William S. Anderson	Importance of Polio Immunization	Inga's Angle, WRC-TV
May 27	Dr. Seymour Alpert	New Anesthetics	Inga's Angle, WRC-TV
June 13	Dr. Julius Schreiber	Your Mental Health—A Look at Some Facts versus Some Frightening Fiction	D. C. Association for Mental Health

A more recent news release issued by the Association stated that "the American Medical Association will loan a part of its large collection of exhibits" to this group's convention in Miami, Florida, June 23 to 26, 1960. This is an incorrect statement. The American Medical Association has notified the D. C. Medical Society's offices that it has not loaned any exhibits to this group.

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive reviews in the interest of our readers and as space permits. Physicians are urged to submit reviews of additional books which, in their opinion, merit comment.

Clinical Management of Behavior Disorders in Children, 2nd ed. HARRY BAKWIN, M.D., Professor of Clinical Pediatrics, New York University; Visiting Physician, Bellevue Hospital; Attending Pediatrician, University Hospital; AND RUTH MORRIS BAKWIN, M.D., Associate Professor of Clinical Pediatrics, New York University; Visiting Physician, Bellevue Hospital; Director Emeritus, Department of Pediatrics, New York Infirmary. Price, $11.00. Pp. 597, illustrated. Philadelphia: Saunders, 1960.

A Doctor in Many Lands. The Autobiography of Aldo Castellani. ALDO CASTELLANI. Price, $4.95. Pp. 359. Garden City, N. Y.: Doubleday, 1960.

Clinical Obstetrics and Gynecology. A Quarterly Book Series. Vol. 3, No. 1. Obstetric Emergencies, edited by MARTIN L. STONE, M.D.; Pediatric Gynecology, edited by JOHN W. HUFFMAN, M.D. Price, $18.00 subscription for 4 consecutive numbers. Pp. 264. New York: Hoeber-Harper, March 1960.

Medical, Surgical, and Gynecological Complications of Pregnancy by the Staff of The Mount Sinai Hospital, New York City. Edited by ALAN F. GUTTMACHER, M.D., Obstetrician and Gynecologist-in-Chief, The Mount Sinai Hospital, New York, AND JOSEPH J. ROVINSKY, M.D., Assistant Attending Obstetrician and Gynecologist, The Mount Sinai Hospital, New York. Price, $16.50. Pp. 619, illustrated. Baltimore: Williams & Wilkins, 1960.

Nine Months' Reading. A Medical Guide for Pregnant Women. ROBERT E. HALL, M.D. Illustrated by Robert Demarest. Price, $2.95. Pp. 191. Garden City, N. Y.: Doubleday, 1960.

Fundamentals of Clinical Hematology. BYRD S. LEAVELL, M.D., Professor of Internal Medicine, Physician-in-charge, Hematology Section, School of Medicine, University oi Virginia; Attending Physician, University of Virginia Hospital, AND OSCAR A. THORUP, JR., M.D., Associate Professor of Internal Medicine, School of Medicine, University of Virginia; Attending Physician, University of Virginia Hospital. Price, $10.00. Pp. 503, illustrated. Philadelphia: Saunders, 1960.

Edema: Mechanisms and Management—A Hahnemann Symposium on Salt and Water Retention.

John H. Moyer, M.D., Professor and Chairman of the Department of Medicine, Hahnemann Medical College and Hospital, and Morton Fuchs, M.D., Assistant Professor of Medicine, Hahnemann Medical College and Hospital. Price, $15.00. Pp. 833, illustrated. Philadelphia: Saunders, 1960.

I Prescribe Laughter. Thomas Richard Rees, M.D. Price, $2.75. Pp. 111. New York: Vantage, 1960.

Ciba Foundation Study Group No. 4. Virus Virulence and Pathogenicity. In honour of Prof. J. Mulder. G. E. W. Wolstenholme, O.B.E., M.A., M.B., M.R.C.P., and Cecilia M. O'Connor, B.Sc., Editors for the Ciba Foundation. Pp. 114, with 13 illustrations. Boston: Little, 1960.

Ciba Foundation Tenth Anniversary Symposium on Significant Trends in Medical Research. G. E. W. Wolstenholme, O.B.E., M.A., M.B., M.R.C.P.; Cecilia M. O'Connor, B.Sc.; and Maeve O'Connor, B.A., Editors for the Ciba Foundation. Price, $9.50. Pp. 356, with 41 illustrations. Boston: Little, 1959.

WARWICK T. BROWN, M.D.

(1890–1960)

Dr. Warwick T. Brown, the first Administrator of the Washington Hospital Center and retired Vice Admiral of the Navy, died suddenly, May 16, 1960 at the Naval Dispensary. He lived at 2800 Woodley Road, N.W.

Dr. Brown served in both World Wars as a surgeon. He retired from the Navy in 1952, after 35 years of service, to become Administrator of Emergency Hospital. He was named Administrator of the new Washington Hospital Center in 1956 and retired in March, 1959.

A native of Parkersburg, Kansas, Dr. Brown was graduated in medicine from Kansas Medical College, Topeka, in 1913. Later he enrolled for postgraduate study at Tulane University and the University of California.

He joined the Navy in 1917 and served during World War I as Assistant Surgeon of the Fourth Marine Brigade in France. During World War II he served as division surgeon of the First Marine Division on Guadalcanal and later was named senior surgeon of the Fleet Marine Force in the Pacific Area. After the war he commanded the Naval hospitals at Quantico and at St. Albans, New York. He was assigned to the Fifth Naval District in Norfolk when he retired to accept the position at Emergency Hospital.

The Washington Hospital Center, which combined the facilities of Emergency, Garfield and Episcopal Eye, Ear and Throat Hospitals, opened in March 1958. Among the many problems which confronted the Administrator were dovetailing the services of the three hospitals, feeding and housing the staff, getting funds for the education of nurses, and handling the heavy influx of emergency cases during the first several months.

WARWICK T. BROWN, M.D.

Dr. Brown was a diplomate of the American Board of Internal Medicine and a member of Kappa Sigma Fraternity and the Army-Navy Club.

His wife, Mrs. Mildred Marie Mills Brown, preceded him in death. He leaves two sons, Mills Brown, of Williamsburg, Va., and Thomas M. Brown, of 1200 South Court House Road, Arlington, Va.

JOHN HENRY GILLIGAN, M.D.
(1904–1960)

Dr. John H. Gilligan, surgeon of Arlington, Virginia, died from drowning near the pier of the yacht basin in Rose Haven, Md., on April 29, 1960. His home was at 5302 North 18th Street, Arlington, Va.

Dr. Gilligan was born, August 22, 1904, in Pittston, Penna., to Thomas J. and Mary Flynn Gilligan. He took a premedical course at Canisius College in Buffalo, and graduated in medicine from Georgetown University School of Medicine in 1929. He interned at St. Mary's Hospital in Rochester, New York.

After engaging for several years in general practice, he decided to specialize in otolaryngology. He was resident physician at Episcopal Eye, Ear and Throat Hospital from 1940 to 1941 and again from 1943 to 1944. In 1944 he also completed a fellowship in pathology at Georgetown University. He was on the staffs of Georgetown, Children's and Arlington Hospitals. His offices were at 1007 North Highland Street, Arlington, Va.

He was Clinical Associate Professor of Surgery (Otolaryngology) at Georgetown University, where he had been a member of the teaching staff since 1941. Until recently he had headed the glaucoma detection clinic at the Northwest Health Center.

He was a diplomate of the American Board of Otolaryngology. He had been an Associate member of the District Medical Society since 1942. He was a member of the American Medical Association, the Medical Society of Virginia, and member and Past President of the Arlington County Medical Society.

He leaves his wife, Mrs. Eileen Beattie Gilligan, and two sons, John, Jr., who is studying medicine at Georgetown University, and Thomas, a graduate of Georgetown Dental School, who is now in the Army and serving in the Canal Zone.

Thrombosis of Internal Carotid Artery—Gallagher

(*Continued from page 377*)

SUMMARY

A series of 17 patients with carotid artery thrombosis treated by thrombo-endarterectomy have been presented. Excellent results after surgery were achieved in 53 per cent. A review of the clinical and pathologic features of spontaneous occlusion of the carotid is given. The factors which seem to play a part in the surgical treatment of this disorder have been discussed.

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Akineton for Parkinsonism—O'Doherty and Edwards

(*Continued from page 380*)

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Reverse Intussusception—Vuitch

(*Continued from page 383*)

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Steering-wheel Injury—Nolan and Ashburn

(*Continued from page 387*)

cough is often delayed. The more frequently encountered sequelae of severe chest injury, such as rib fractures, bronchial fractures, pneumothorax, hemothorax, cardiac contusion, etc., are often absent, and their absence may lull one into failing to suspect this deep-seated visceral injury.

Experience with 10 collected cases appears to indicate that early surgical closure of these fistulae is the preferred method of treatment. Waiting for the fistula to close has been completely unrewarding in the experience to date.

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Report of Physicians' Services Committee

(*Continued from page 404*)

Robert B. Nelson, Jr., and Lawrence A. Rapee. In addition, Drs. George H. McLain, Brooks G. Brown, Kenneth L. McCoy, Everett S. Caldemeyer, Hilbert S. Sabin, Albert F. Fleury, John P. Adams, John P. Gallagher, Philip P. Steptoe, and Charles W. Harnsberger attended meetings of the Committee when called upon as alternates. The Committee has been assisted by the Administrative Staff, particularly Dr. A. C. Gray, who has presented the cases to the Committee and summarized the available information concerning them. He has been assisted by Mr. George McGovern, Mr. Arthur B. Carpenter and Mr. Alan Ridgway, who have clarified contractural interpretations and have served as Secretary at the meetings.

For myself, I feel I can say that I have come to know and understand the meaning of Medical Service to physicians and to the community in far greater measure through participation in the activities of the Committee on Physicians' Services than would have been possible in any other way.

Luther W. Gray, M.D.
Chairman

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SEARLE

Book Reviews

Current Therapy—1960. Latest Approved Methods of Treatment for the Practicing Physician. Edited by Howard F. Conn, M.D., with 12 consulting editors. Price, $12.00. Pp. 808. Philadelphia: Saunders, 1960.

This is the twelfth edition of this very valuable, complete, and authoritative textbook. The first edition was published in 1949, and each year a new rather than a revised edition has been published. In addition to the 12 consulting editors, there are 308 contributing authors, most of whom are well-recognized experts in their various fields.

The book is remarkably up-to-date and contains much valuable information on the most recent therapeutic advances. The therapy of each disease is discussed fully by one of the authors and frequently there are interesting comments concerning the nature of the disease and laboratory and physical findings. The volume is well organized and indexed. There are 15 different sections encompassing the various medical fields. In addition there is a section containing valuable miscellaneous information, including a roster of drugs and their composition, a table of pediatric dosages, tables on making percentage solutions, and important normal laboratory values.

One of the fine features of this text is the thorough and practical approach of the various authors to their subjects. As one would expect, in a text of this nature, there are opinions as to therapy with which many will disagree. However, because of the excellent selection of authors and editors, the amount of controversial material is very small. This is an excellent review of current therapy and is highly recommended to those interested in the treatment of medical disease.

Arthur Burgerman, M.D.

Babies by Choice or by Chance. Alan F. Guttmacher, M.D. Price, $3.95. Pp. 289. Garden City, N.Y.: Doubleday, 1959.

This book was apparently written for the lay public, but it should prove most interesting and informative to members of the medical profession as well, especially those in the field of obstetrics.

The author has given an excellent account on the subjects of contraception, sterilization, abortions (legalized, criminal and spontaneous), infertility, and artificial insemination. He gives a rather detailed account of the pro's and con's to be considered in each of these fields and discusses them from the aspects of religion, law, medicine, and also from the socioeconomic aspect. The methods used in carrying out the procedures discussed are described and the author cites instances and cases from his own experiences during his 30 years of practicing obstetrics and gynecology in New York City.

Much of the book is devoted to the question of therapeutic abortion, and Dr. Guttmacher has pointed out that the necessary consultations required for a "legalized abortion" are apparently much easier to find for a wealthy patient than for one who is poor!

This book is a very interesting and factual account of all facets relating to the subject of whether babies are to be born by choice or by chance.

O. H. Jorgensen, M.D.

The Surgeon and the Child. Willis J. Potts, M.D. Price, $7.50. Pp. 255, illustrated. Philadelphia: Saunders, 1959.

"Pediatric surgery born of the lawfully wedded parents—need and demand—is now joining the family of specialties," says the author, both in his introduction and in a very real sense throughout this most enjoyable text. One cannot escape the feeling that Dr. Potts, a real leader in the field of pediatric surgery, has attained this role as much through his philosophy and approach as through his skill as a surgeon. The early chapters in the textbook and the postscript are essentially essays on the art of pediatric *medicine*. In fact, the chapter entitled, "The Heart of a Child," which is a reprint from a previous publication, should be recommended reading for anyone concerned with the care of children.

Dr. Potts must thoroughly enjoy his work, both in medical care and teaching, as witness the humor interspersed through serious discussions of surgical problems and the ease with which information and opinions are synthesized. Dr. Potts himself is talking when he writes on preoperative care: "There are three ways of giving a vomiting dehydrated child fluid but only one is really effective. Proctoclysis for little children is absolutely silly. When the procedure is ordered the nurse's notes invariably read as follows: 'Proctoclysis begun. Proctoclysis stopped. Bed linen changed.' "

Technically this text would certainly not satisfy a surgeon for detail nor is any of the chapters documented with references. In fact, the medical content is apparently derived entirely from the experience of the author. In one sense, the lack of references is a fault of the textbook if one is seeking a full review on a particular surgical problem. The approach is almost too didactic if one does

(*Continued on page 42*)

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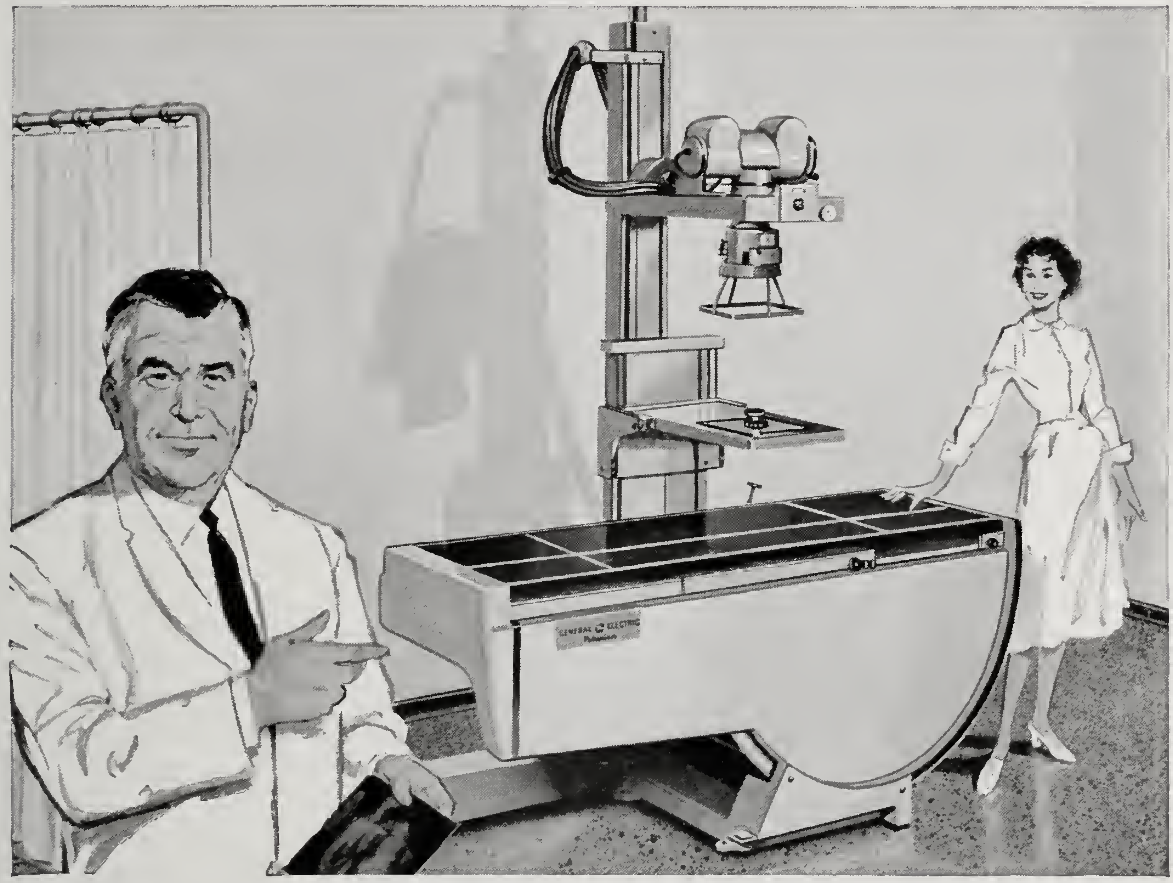

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Book Reviews

(*Continued from page 40*)

not consider the source. If one does consider the source, however, it is hard to imagine that better opinions could be obtained even by a complete review of the literature. What general surgeon could have developed the artistry of this pioneer pediatric surgeon in handling not only the specific surgical problems peculiar to infancy and childhood but in understanding fully the physiology and emotions of a child.

This book is a classic of relaxed writing on subjects deep in the experience and dear to the heart of the author. It is a book which can be read with the ease of a modern novel and with the effect of having attended ward rounds in the presence of the author.

Robert H. Parrott, M.D.

A Doctor's Life of John Keats. Walter A. Wells, M.D. Price, $3.95. Pp. 247, illustrated. New York: Vantage, 1959.

Few of us reach the stage of practice of medicine without knowing that John Keats was also a physician. Yet very few of us will have among our volumes anything but a copy of "Endymion" or a collection of Keats' poetic efforts. Dr. Walter A. Wells, known to all of us in the Washington area, has written about Keats as a colleague would analyze the case record of an old friend.

Among several attractive features of this modest volume of 247 pages is a fresh and informative section on Guys' Hospital with its galaxy of great medical personalities. The author's account of eighteenth century medical practice in England brings out very well the atmosphere usually associated with the apothecary's shop with its aroma, mortar and pestle, apothecary jars, etc. Derived from the letters of Keats and his contemporaries, the author has given a nostalgic picture of the community in which Keats lived his short life.

One gathers from this account that Keats lived a fairly lonely life with a few very close friends, one of whom, Fanny Browne, he loved and had the hope of marriage and a full life ahead. His illness, tuberculosis, progressed insidiously during his last 2 years until hemoptysis brought to his thinking the stark reality of his condition. From this time on, for just over a year to his death, he lived a sad and uncomfortable life.

The author's analysis of the genius of Keats is a bit clinical and tangential to this reader. He labors the point, which has been the pastime of many before, that there are certain characteristics of genius by which it can be recognized. Genius or not, the magic of Keats' poetry will endure endless time—as he himself said, "A thing of beauty is a joy forever."

Eugene P. Campbell, M.D.

Ciba Foundation Tenth Anniversary Symposium on Significant Trends in Medical Research. G. E. W. Wolstenholme, O.B.E., M.A., M.B., M.R.C.P.; Cecilia M. O'Connor, B.Sc., and Maeve O'Connor, B.A., Editors for the Ciba Foundation. Price, $9.50. Pp. 356, with 41 illustrations. Boston: Little, 1959.

This volume is indeed noteworthy. It contains papers by 16 authors presented at the Tenth Anniversary Symposium of the Ciba Foundation, held in June 1959, and the discussions thereof by 14 other participants.

The group of contributors includes international scientists of eminence, 7 of them Nobel Laureates. England, Canada, Australia, Germany, Switzerland, South Africa, and the U.S.S.R. are among the countries which have representatives on the panel. From the United States, R. F. Loeb, L. Pauling, D. W. Richards, and J. A. Shannon are listed. The speakers were invited to present the developments in their respective fields of activity during the past 10 years which they believed would prove to be most significant in the next 10 years.

The motif, "To look backward and to look forward," adds a unique feature to the volume. The discussants adopted the plan of "beginning at the beginning and going on to the end." Accordingly, the entire range of the medical sciences is encompassed and the different disciplines make their special appeal.

The first paper deals with "Molecular Structure in Relation to Biology and Medicine." Of added interest to the biologist are the contributions dealing with Enzyme Complexes, Population Dynamics of Body Cells, and Genetics and Medicine. The sphere of the physiologist will be enlarged by the Review of Ten Years of General Neurophysiology, by the consideration of the Nature and Mechanism of Action of Hormones, and of the Metabolic Problems Involving the Pancreas, Choline, Insulin and Glucagon. The physician and surgeon will be aided and encouraged by the papers devoted to Virus Multiplication, Research in Chronic Pulmonary Disease, Malignant Transformation, and Research in Clinical Nutrition.

A presentation on Research Administration in the United States by Dr. J. A. Shannon, Director of the National Institutes of Health, a general discussion, and remarks by the Chairman make up the concluding chapters of the Symposium.

At the end of each chapter there is recorded a discussion of the subject matter. There may be several participants; and the divergence of views which find expression is indeed stimulating. The Ciba Foundation has rendered a notable service in making available to the medical profession a summary of the achievements of the past decade.

Harry S. Bernton, M.D.

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EVALUATION OF CHLORASEPTIC

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ONE OF THE frequent distressing feelings due to disease, bodily injury or organic disorders is pain. In fact, it has long been the consensus among pathologists that pain is an important cardinal symptom of an acute inflammatory process.

Inflammatory conditions of the mouth and its contained structures, the fauces and pharynx, are most often accompanied by pain. This subjective and distressing symptom is usually responsible for the patient's visit to his doctor. The immediate desire is relief from pain, while the doctor concerns himself with the underlying disease and its eradication.

To successfully manage the patient and the disease the doctor would be in need of a therapeutic agent of dual action, one to quickly relieve the patient of his pain and the other to eliminate the basic disease. In other words, the drug would of necessity have to possess both analgesic and bactericidal properties.

Many therapeutic agents, such as mouth washes, gargles and troches, have been introduced and put on the pharmacist's shelves for the purpose of treating oral and pharyngeal diseases. The results obtained with these agents are not always satisfactory, and the pharmacopeia is still in need of a more effective drug.

This paper is a report of the results obtained in clinical and bacteriologic studies made with Chloraseptic, a new therapeutic agent introduced for the treatment of oral and pharyngeal inflammations. This agent is a solution which, when applied topically to the diseased area in the form of a spray or rinse, will relieve pain and destroy pathogenic organisms.

CHEMISTRY

The chemical constituents of Chloraseptic solution are phenol (less than 1.4 per cent), sodium phenolate, menthol, thymol, sodium tetraborate, glycerin and chlorophyll. The pH is 8.5, well in the alkaline zone. The action of this solution is primarily derived from the phenolic salts.

Since its adoption as a germicide by Lister in 1867, phenol has undergone extensive studies. It was found that its antibacterial activity varies with the concentration, temperature, pH, and other physical and chemical factors.

Pulvertaft and Lumb[1] found that phenol in low concentration activated the lytic cell enzymes, but in high concentration inhibited this activity.

Gale and Taylor[2] studied the effect of antibacterial agents on the bacterial cell, using *Streptococcus faecalis* as the test organism. They found that 1 per cent phenol caused a leak of glutamic acid, as intensive as that produced by boiling the cell.

Maurice[3] and Haydon[4] independently demonstrated that phenol increases the permeability of the cell wall and causes leakage of essential metabolites from the bacterial cell.

Bach and Lambert[5] and Roberts and Rahn[6] definitely demonstrated the deleterious effect of phenol upon bacterial enzymes.

Phenol also inactivates viruses, and a 1 per cent solution is used extensively to inactivate the rabies virus in vaccine preparations.[7]

TOXICOLOGY

Acute oral toxicity tests on samples of Chloraseptic were conducted by the Food and Drug Research Laboratories[8] (Report No. 77605) in September 1958 by use of the LD_{50} method. Albino rats were used, and the dose was administered intragastrically via stomach tube. An acute LD_{50} dose is one which may be expected to kill half of the animals in a test group with a single oral administration.

PROCEDURE

Twenty-four adult rats, weighing from 175 to 225 Gm., equally divided between the sexes, were fasted for 18 plus or minus 2 hours. Chloraseptic was then administered by stomach tube. The undiluted material was dispersed on a columetric basis, the weight of the dose being calculated from the specific gravity (1.0018).

Four graded doses ranging from 8 to 32 Gm. per Kg. of body weight were administered to groups of 6 rats each. After dosage the rats were housed individually and supplied with food and water ad libitum. Observations were made of body weights, appearance, behavior, etc. At 14 days all rats were examined for gross lesions. Results of the study are given in table 1.

TABLE 1

Acute Oral Toxicity Studies on 24 Rats

Dose* Gm./Kg.	No. of Rats	Avg. Body Weight (Gm.)†		Symptoms‡	No. of Deaths				Mortality %
		Days			Days				
		0	14		1	2	3	Over 3	
8.0	6	320.8	242.3	None	0	0	0	0	0
16.0	6	213.3	241.7	$A^6P^6C^2N^2$	0	0	0	0	0
22.62	6	216.5	230.0	$A^6P^6C^2N^2$	0	0	0	0	0
32.0	6	207.0	—	$A^6P^6C^6N^6$	6	0	0	0	100

* Administered intragastrically undiluted.

† Equal numbers of males and females.

‡ Superscripts indicate number of rats showing symptoms: (A) abdominal pain; (C) convulsions; (N) nasal irritation; (P) prostration.

The acute oral toxicity (LD_{50}) for rats is estimated to be 22.6 plus or minus 2.9 Gm. per Kg. body weight. According to categories described by Gleason, Gosselin and Hodge,[9] Chloraseptic is regarded as nontoxic.

BACTERIOLOGIC STUDIES

Bacteriologic studies of the effectiveness of Chloraseptic as a bactericide have been made both in vivo and in vitro.

In Vitro studies. The following in vitro studies were performed by Bayside Laboratories[10] and Food and Drug Research Laboratories[11] on various microörganisms usually found in the oral and pharyngeal areas. The A.O.A.C. (Association of Official Agricultural Chemists) Phenol Coefficient Method was used (table 2).

These data show considerable germicidal activity against these pathogenic microörganisms. Additional studies[9] with the A.O.A.C. Method demonstrated the germicidal properties of Chloraseptic. Negative cultures were obtained in the following dilutions within 15 minutes at 37°C: *Staphylococcus aureus* 1:80; *Streptococcus var. hemolyticus* 1:100.

TABLE 2

Results of In Vitro Studies of Germicidal Properties of Chloraseptic

Organism	Seconds		Minutes						
	15	30	1	2	3	4	5	10	15
Staphylococcus aureus	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.
Streptococcus hemolyticus	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.
Salmonella typhosa	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.
Monilia albicans	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.
Trichophyton mentagrophytes	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.
Escherichia coli	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.

In Vivo study (comparative). A group of 100 hospital patients being treated for streptococcal pharyngeal infections were divided into 3 groups of 50, 25 and 25, respectively. All of the patients had throat cultures taken prior to initiation of therapy, and colony counts were made in each case for *Streptococcus hemolyticus.*

Group I, consisting of 50 patients, was then given Chloraseptic and advised to spray it into the throat 5 times and swallow, repeating every 2 hours.

Group II (25 patients) was given a placebo of the same color as Chloraseptic with the same instructions as those given to group I.

Group III (25 patients) was treated by daily injections of 600,000 units of penicillin, intramuscularly.

The results are shown in table 3.

TABLE 3

Results of In Vivo Studies on 100 Hospital Patients

	Reduction in Bacteria Count in 24 Hours	Per cent of Cases Negative		
	Per cent	24 hrs.	72 hrs.	5 days
Group I (Chloraseptic)	40–70	10	84	94
Group II (Placebo)	0	0	—	—
Group III (Penicillin—600,000 units)	17	0	0	4

The question of relief of pain in the throat was also carefully considered in each of the 3 groups. The results were favorable in group I (which used Chloraseptic) and unfavorable in groups II and III. Relief of sore throat in group I was obtained within 15 seconds to 3 minutes and lasted between 2 and 3 hours.

SUMMARY

One hundred patients with infectious throat conditions were treated either with Chloraseptic (to determine its anesthetic and germicidal properties) or with penicillin (600,000 units injectable), which was used in a comparative bacteriologic study. Chloraseptic relieved soreness of the pharyngeal tissues within 3 minutes. Relief lasted 2 to 3 hours. It reduced the bacteria count of the *Streptococcus hemolyticus* 40 to 70 per cent in 24 hours. Completely negative cultures were obtained in 72 hours in 84 per cent of the cases. No toxic or sensitizing effects were observed.

Chloraseptic was found to be more effective than penicillin. In the first 24 hours Chloraseptic was found to be 3 times as effective as injectable penicillin in the reduction of the pathogenic bacteria count. After 72 hours the bactericidal action of Chloraseptic continued and 84 per cent of the cases were negative. With the use of penicillin there were no negative cases during the same period.

It is apparent that Chloraseptic has definite merit as a therapeutic agent. Its anesthetic property, though not of the surgical type, is of specific value in relieving the distressing symptoms of pain and irritation. This result is of great help to the patient whose chief complaint is pain. Once the pain is relieved he can carry on comfortably until he is rid of the disease.

(*Continued on page 469*)

GASTROINTESTINAL GASES*

KURT LEKISCH, M.D., F.A.C.P.
Midland, Texas

THERE IS a general lack of understanding of the mechanisms by which gas accumulates in the gastrointestinal tract. It may be stated that the trapping of gas anywhere in the gastrointestinal tract represents a disparity at any given time between gas-forming and gas-removing mechanisms.

There are several physiologic means by which gas reaches and leaves the gastrointestinal tract:

1. By ingestion or ejection through the hypopharynx and other openings of the gastrointestinal tract.
2. By diffusion from the blood stream and into the blood stream.
3. By chemical changes of the intestinal contents or absorption through the intestinal wall.

It is the purpose of this presentation to review and to reëmphasize the listed mechanisms.

In the historical literature it is suggested that the Emperor Claudius must have suffered with flatulence because he enacted a law to enable any Roman to pass gas in public whenever the occasion demanded. Many years ago there were persons who amused themselves and their friends by lighting cigars during eructation.

Aerophagia

The ingestion of air by swallowing or by aspiration is the most important means by which gas reaches the gastrointestinal lumen. Hence, the symptoms related to excessive swallowing of air comprise the most frequent functional complaints which confront the clinician. These symptoms include belching, early postprandial fullness, bloating and discomfort, substernal pain simulating angina pectoris, discomfort at the left rib margin, generalized abdominal distention, borborygmus, crampy abdominal pains suggesting partial intestinal obstruction, flatulence, and postoperative distention. Normally the superior esophageal sphincter is found at the pharyngoesophageal junction where a fold of mucosa and the transverse fibers of the inferior pharyngeal constrictor muscle form the sphincter and keep the esophagus closed. It appears that another mechanism of air ingestion involving unconscious relaxation of the superior esophageal sphincter and the creation of negative pressure in the esophagus as the result of inspiration against a closed glottis is capable of drawing 1,000 to 2,000 c.c. of air into the esophagus within 3 to 5 minutes.[1] Some individuals ("air suckers") can perform this act voluntarily. This explains the trick of downing a bottle of beer in one gulp. The laryngectomized patient can learn esophageal speech with air aspirated into the esophagus by the same method as that of the "air sucker." With skill his aspirations occur with normal inspirations and are practically unnoticeable. It is fortunate that such intake of air, especially during the swallowing of nourishment, is immediately belched and rarely passes the cardia. Gas appears in the stomach and alimentary tract of infants within 15 minutes after birth, and the roentgenographic finding of air in the bowel has been suggested as a test for extra-uterine life.

Alvarez[2] lists 6 different kinds of belches and points out that many of the individuals afflicted with more than the usual polite belch after a meal are nervous, worried, irritable, distracted, or hyperactive people. He has frequently seen the chronic belcher under the fluoroscope and notes that most of the air stays in the esophagus and does not descend into the stomach. However, Maddock and associates[3] presented kymographic tracings demonstrating that with belching the amount of air aspirated into the esophagus was greater than the amount of air eructated. Therefore, some air passed into the stomach.

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The great diversity of diseases in which acute gastric dilatation has occurred supports the opinion that a reflex phenomenon is involved. In many instances it may be discomfort, nervousness, or apprehension associated with a disease, or injury and its treatment that starts the unconscious aspiration of air.

During the swift induction of a modern anesthetic there are very few swallowing movements; therefore, during operations, only a small amount of gas (average 53 c.c.) enters the stomach in the majority of patients. It has been noted by Maddock and his associates[3] that the ordinary manipulation of the viscera attendant upon laparotomies did not result in troublesome distention of the stomach.

Relaxation of the esophageal sphincter and respiratory aspiration of air into the esophagus with resulting distention and spontaneous perforation of the stomach has been reported.[3] Considerable gas, aspirated from the stomachs of 5 patients during an operation under cyclopropane anesthesia plus curare, was considered to have occurred because of a partial paralysis of the respiratory muscles and the superior esophageal sphincter, positive pressure anesthesia being used to force the gas into the stomach.

An excellent opportunity for studying accumulations of intestinal gas was offered by patients undergoing urologic evaluations.[3] By continuous gastric suction considerable volumes of air were aspirated from the stomach, and when the stomach was kept empty no increase in intestinal gas occurred. According to Maddock,[3] the time period of study varied from 35 to 68 minutes and the volume of gastric gas aspirated ranged from 45 to 1,345 c.c. The age and the sex of the patient seemed to make no difference. The nervous patients undergoing pyelography had 3 times as much air aspirated from their stomachs as did the calm patients. Outstanding was the fact that when the stomach was kept empty of gas by good function of the gastric tube there was no increase in the amount of the intestinal gas from the initial to the final pyelogram. This is further evidence that external air is a major source of gastrointestinal gas.

VARIATIONS IN PASSAGE AND STOPPAGE OF INTESTINAL GAS

Usually roentgenograms of the abdomen in adults, made with patients in a dorsal decubitus position, do not show gas in the small bowel. Visible collection of gas in the small bowel may be present as a result of a variety of conditions. These include air swallowing due to emotional tension, obstruction, the recent use of morphine or other drugs, peritonitis or other forms of peritoneal irritation, inflammatory bowel diseases, biliary colic, pelvic, vertebral and other injuries. Any of these, as well as other factors, may cause dilatation of bowel segments; therefore, it is necessary to exclude their presence by an appropriate correlation of the clinical features of the situation before concluding that visible gas shadows are proof of the presence of obstruction.

The quantity and composition of colonic gases in normal individuals were studied by Kirk.[4] He inserted a rubber catheter into the rectum and connected the catheter with the gas-collecting apparatus. Table 1 summarizes the quantity and composition of colonic gases in normal individuals on 2 different diets. The hydrogen sulfide content as shown in the table is minimal; however, despite its low concentration, its odor will frequently be noticeable. Kirk[4] also studied the quantity of colonic flatus in patients with congestive heart failure and found it to be decreased (table 2). This was explained by the reduction of food and fluid intake in his studied cases.

In 1933 Magnusson[5] dismissed gas formation from intestinal decomposition and diffusion from the blood as possible sources and believed that the main bulk of gas consisted of air that had passed

TABLE 1*

Summarized Survey of the Quantity and Composition of Colonic Flatus in Normal Individuals

Period	Number of Individuals	Flatus ml./min.	CO_2 *Per cent*	O_2 *Per cent*	CH_4 *Per cent*	H_2 *Per cent*	N_2 *Per cent*	H_2S *Per cent*	H_2S mg./cu. mm.
1943–44†	20	1.48	9.0	3.9	7.2	20.9	59.0	0.00030	5
1945–46‡	25	1.45	9.7	5.5	3.1	12.0	69.7	0.00010	2

* From Kirk[4]

† Ordinary diet, cabbage free

‡ Ordinary diet, cabbage free and milk free

down the esophagus, probably by some process of aerophagy or air-swallowing. To confirm these impressions he filled the colon of normal adult subjects with an opaque enema so that air coming into the cecum could be easily seen. He then turned the subjects on their left sides to place the pylorus upward and injected air into their stomachs. The progress of the air was recorded by frequent roentgenograms and the results are shown and compared with the passage of barium (figure 1).

TABLE 2

Average Flatus of Patients in Congestive Failure 0.87 ml./min.

CO_2 *Per cent*	O_2 *Per cent*	CH_4 *Per cent*	H_2 *Per cent*	N_2 *Per cent*	H_2S *Per cent*	H_2S
7.9	5.2	4.7	6.1	76.1	0.00012	2 mg./cu.mm.

The gas analyses showed the intestinal gas in this experiment to approximate, with some reasonable modification, the composition of atmospheric air.

The objection may be raised that the enema did increase intestinal peristalsis. Studies should be made in which radioactive gas mixed with air is injected into the stomach and its timed appearance at the cecum and rectum is recorded by a radioactive counting device. This should be done with the patient lying on the left side, as was done by Magnusson,[5] and in addition with the patient in other positions. Patients with ileostomies, cecostomies and colostomies could also be used for observation on the speed of the passage of air. Other experiments have demonstrated that oxygen passes through the gastrointestinal tract at about the same rate as air.

Wangensteen[6] stated that, of the gas present in an obstructed bowel, 68 per cent is swallowed air and only 32 per cent originates in the body, the latter as a result of diffusion of gases from the blood and decomposition of food and intestinal contents. Nitrogen was found to be the chief component of the gas in the obstructed bowel, forming from 60 to 80 per cent of the gas obtained for analysis in cases of paralytic ileus, mechanical obstruction of the ileum, and carcinomatous block in the colon. The effects of distention in the gastrointestinal tract, due to numerous causative factors, vary with the level and character of the lesion. Regardless of the location, they are serious and occasionally lethal. By review of the present literature about simple and complicated obstruction, we are not in a position to state exactly

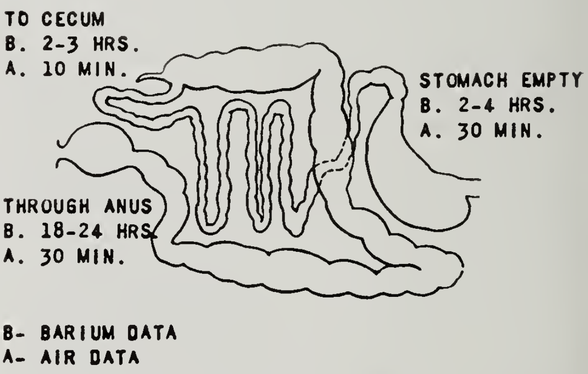

FIG. 1. Diagram showing the rapid passage of air compared to barium through the adult gastrointestinal tract (Magnusson[5]).

how distention of the bowel causes death. However, most authors agree that the largest single factor in lowering mortality from intestinal obstruction with distention is its early recognition. The successful surgical and medical approach includes continuous gastric and intestinal decompression of the occluded bowel, with simultaneous judicious administration of fluids and electrolytes by parenteral routes.

INTERFERENCE WITH INTESTINAL CIRCULATION

It is generally agreed that the diffusion of various gases from the blood stream into the stomach or intestinal lumen is responsible for less than 20 per cent of the gas found in the gastrointestinal tract even above a point of small bowel obstruction. Gases in the stomach and intestine obey physical laws, and they tend to come into equilibrium with those in the blood.

A number of observers have noted the excretion of gases from the blood into the stomach and intestines. Schierbeck[7] limited his studies to the stomachs of dogs. The stomach was inflated with gas and later the samples were withdrawn for analysis. It was found that the amount of carbon dioxide in the stomach was of a higher concentration than that in the blood.

An analysis of the gases returned by gastric tube in human subjects was studied by Maddock et al.[3] One patient underwent intravenous pyelography (J.M.) and a second individual (V.T.) took air in by deep breathing and air sucking (table 3).

TABLE 3*

Analysis of Gases Returned by Gastric Tube

	CO_2 *Per cent*	O_2 *Per cent*	N_2 *Per cent*
J.M. (I.V. pyelography)	1.70	19.53	78.80
V.T.† (Deep breathing)	7.57	17.08	75.40
V.T.‡ (Air sucking)	1.45	19.46	79.09
City air	0.10	20.85	79.05

* From Maddock, Bell and Tremaine[3]

† 20 min. deep breathing—270 c.c.

‡ 2 min. air sucking—700 c.c.

The concentrations of O_2 and N_2 in the returned air of both subjects were close to that of atmospheric air. However, the carbon dioxide values in J. M. and V.T. were higher than those found in the city air. This was explained by the rapid diffusion of carbon dioxide into the stomach. When mesenteric circulation was impaired, particularly on the venous side, the absorption of gas from the bowel not only lessened, but excretion from the blood into the bowel was increased. McIver and associates[8] found in their experiments that most of the gas in the anoxemic bowel was carbon dioxide. They assumed that whatever oxygen had been excreted into the bowel was reabsorbed to meet the increased demand for this gas on the part of the tissues. These experiments elucidated that a defect in the circulation of the mucous membrane had a considerable influence on the production of flatus. This was confirmed by Lawson and associates,[9] who found no gaseous distention in isolated loops of the bowel until the circulation was interrupted.

Direct observation of the precise effects of the circulation of blood in the bowel of man with varying degrees of distention presents obvious difficulties. In the past, experimentation in animals has given considerable information about this problem. It is reasonable to expect some degree of correlation between the animal experiments and the situation in man. Noer and Derr[10] utilized human autopsy material for their studies. Loops from the lower part of the jejunum and upper part of the ileum, with the blood supply well preserved, were injected with India ink after distention. The results are listed as follows:

"Intra-enteric pressures of 70 mm. of mercury or higher prevent filling of the distended area of the intestine, even when all the mesenteric vessels remain intact. Gradual deflation reveals that the larger arteries begin to fill at 60 to 50 mm., and that they are fairly well injected at pressures of 20 to 30 mm. Complete capillary filling, however, does not occur until complete deflation has been produced.

"Ligation of the vasa recta supplying the distended loop greatly accentuates the interference with filling produced by distention, since all filling must then take place by means of anastomoses within the intestinal wall. In these circumstances the distended loop fills only from its extremities as the balloon is deflating in these areas; the central portion of the loop remains uninjected until complete deflation of the balloon has been accomplished."

These findings exhibit the fact that distention, even in minor degrees, results in definite and often serious interference with the circulation within the intestinal wall. However, such factors as vasodilatation and vasoconstriction, contractility of muscle, and variations in tissue tension are of great importance in determining the reaction of the intestine and its circulation to varying degrees of distention.

INTERFERENCE WITH NUTRITION AND DIGESTION

Chemical change of intestinal contents, or putrefaction, contributes little, if any, to gaseous distention. Even in cases of small bowel obstruction, less than 10 per cent of the gas above the obstruction has been found to result from putrefaction. Moreover, other factors, such as stasis and impairment of circulation to the intestine, are necessary before putrefaction achieves even this small degree of significance. The alkaline reaction of the contents of the large bowel, in contrast to the acid reaction of the contents of the small intestine, is favorable to the growth of bacteria. Apparently the proteins are more vulnerable than the carbohydrates to bacterial action. Contributing to the chemical changes is the physiologic stagnation in the cecum and in the ascending colon. In this area the bowel contents are found in a stage of relative fluidity. A splitting of the protein molecule liberates carbon dioxide, hydrogen sulfide, "marsh gas" (methane gas which is colorless, odorless and inflammable), and the amino acids such as indole and skatole. Bacterial action producing hydrolysis of cellulose is an added factor in gas formation. The widespread use of antibiotics has, in many cases, produced changes in the bacterial flora of the bowel, with associated disturbances.

DISORDERS OF NEUROMUSCULAR PHYSIOLOGY WITHIN THE WALL OF THE GUT

Intestinal movements are commonly regarded as of 2 types, the peristaltic or propulsive movement and the myogenic movement. In both, the longitudinal as well as the circular muscle coats play a part. The propulsive movements involving coördinated contraction and relaxation of the muscle of the wall are believed to be controlled by reflexes, coördinated through the intramural nervous system. The myogenic movements continue unchanged after the intramural nerves are paralyzed and presumably are not controlled by them. The small intestine is supplied by both divisions of the autonomic nervous system, the parasympathetic fibers and sympathetic fibers. In addition, the intramural nervous system is composed of the myenteric and the submucosal plexuses, which are elaborate networks of postganglionic sympathetic fibers and preganglionic and postganglionic fibers and ganglion cells of the parasympathetic system.

The nerve endings apparently are responsible for the production of chemicals. Acetylcholine is produced by an enzyme called choline acetylase in the presence of adenosine-triphosphate, thiamine, potassium ions, pantothenic acid, and probably other substances. Stimulation of the parasympathetic nerves or the injection of acetylcholine or one of its derivatives increases the movement and the tonus of the small intestine. Jacques[11] in 1951 presented evidence that a diet deficient in pantothenic acid caused atony and distention of the gastrointestinal tract in rats, and that the administration of pantothenic acid in 16 cases of paralytic ileus was followed by striking improvement of peristalsis; this was explained by the increase in production of acetylcholine. On the other hand, stimulation of the sympathetic nerves by the injection of epinephrine, a sympathomimetic drug, inhibits the movements of the intestine and reduces tonus. The mechanism of this action of epinephrine is apparently not completely understood, but there is some evidence that it destroys or prevents the effect of acetylcholine, analogous to the effect of acetylcholine esterase. It has been shown that the continuous injection of epinephrine in dogs for 15 days produced a fatal gastrointestinal "inhibition."[12]

Interference with Intestinal Absorption

For many years, gas distention of the small bowel has been observed due to hypoproteinemia, associated with different clinical entities. Edema in the wall of the intestine begins to develop when the blood albumin drops below 2.5 Gm. with a total protein of 5.5 Gm. or less per 100 c.c. of blood. Bockus[13] mentioned abdominal swelling due to "flatulent indigestion" as an early symptom of cirrhosis of the liver in 28.7 per cent of 386 cirrhotic patients. No detailed statement was given regarding the quantity and quality of the intestinal gases in the cases studied. It is postulated that a protein deficit in the form of lack of albumin formation in the liver parenchyma is the underlying cause. Also, sprue, in its advanced stages, is manifested by gaseous distention in such quantities as to suggest ileus. Anatomically, atrophy of the mucosa and the tunica muscularis with submucosal edema is noted. Gas distention occurs in some patients who have, for different clinical reasons, a low blood potassium. Prostigmin, a synthetic alkaloid of the physostigmine group of drugs, exerts a pharmacologic action by the inhibition of choline esterase. Since the substance which destroys acetylcholine has no effect on distention in either hypoproteinemia or hypopotassemia, a deficiency of acetylcholine in the wall of the intestine is suggested. Hale and Schatzki[14] cited dilatation of the small intestines in scleroderma. Golden[15] reported gas distention of the small bowel due to amyloidosis. In these and related maladies the intestinal wall was incapable of responding to parasympathomimetic drugs such as Prostigmin or Mecholyl or Urecholine, derivates of acetylcholine.

Summary and Conclusions

Experimental and clinical evidence indicates that the ingestion of air, by swallowing or by aspiration, is the most significant method by which gas reaches the gastrointestinal tract. Air passes through the gastrointestinal tract 40 times faster than barium. Intestinal gas consists mainly of nitrogen, carbon dioxide, oxygen, methane, and a minimal amount of hydrogen sulfide. The hydrogen sulfide is responsible for the odor. Fermentation, which takes place in the right side of the colon, produces very little gas. An analysis of gases returned by gastric tube in human subjects revealed the carbon dioxide content to be higher than that found in the city air.

Distention in the gastrointestinal tract, due to numerous factors, varies with the level and character of the lesions. No gaseous distention in isolated loops was found until the circulation was interrupted within the intestinal wall. Factors such as vasodilatation, vasoconstriction, contractility of muscle, and variations in tissue tensions determine the degrees of distention.

The disorders of the neuromuscular physiology within the wall of the gut are caused by a deficiency in one or more components necessary for the production of acetylcholine.

Intestinal distention has been observed as a result of hypoproteinemia and hypopotassemia associated with or without organic diseases of the intestinal wall or other organs.

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(*Continued on page 469*)

THE INCIDENCE AND EMERGENCY TREATMENT OF ANGIONEUROTIC EDEMA AND ANAPHYLACTOID REACTIONS FROM ANTIBIOTICS

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THE INCREASING incidence of severe allergic reactions to antibiotics is of grave concern to the medical profession and to the public.

A total number of 3,419 reactions were reported as severe by hospitals and physicians interviewed in a Nationwide survey[1] embracing late 1953 to early 1957. Four hundred and twenty-four of these were discarded, primarily because sufficient data were lacking for proper classification. Of the remaining 2,995 cases, 2,517 were associated with the use of penicillin. This drug accounted for approximately 80 per cent of all reactions reviewed in the survey. The principal findings in this survey are repeated for emphasis:

There were 1,925 reactions that were not classified as "life threatening," and in 1,616 of these penicillin was the responsible agent. These reactions were mainly cases of angioneurotic edema and other dermal lesions.

"One thousand and seventy cases were classified in the survey as 'severe' or life threatening, and of these, penicillin was involved in 901 (84 per cent). Of the 901 penicillin cases, 83 died, a fatality rate of about 9 per cent. The great majority of severe penicillln reactions were of the anaphylactoid shock type (793), with a fatality rate of 9 per cent. No deaths occurred in these cases involving oral penicillin. Sixteen anaphylactoid reactions with 2 deaths were associated with other antibiotics. The incidence of anaphylactoid reactions increased during the three years fully covered in this survey: 179 cases in 1954, 231 in 1955, and 301 in 1956.

"There were 38 life-threatening cases of angioneurotic edema, 37 with severe respiratory and 1 with cerebral involvement. Thirty-seven of these followed administration of penicillin and 1 followed intramuscular chloramphenicol. There were 5 deaths in the group, a fatality rate of about 13 per cent. The only death encountered following oral penicillin therapy occurred in this group."

Since 1945 over 500,000 intramuscular injections of penicillin have been given to more than 200,000 individuals in the clinics of the District of Columbia Department of Public Health. Severe reactions to penicillin were occasionally seen by our clinicians, even when crystalline penicillins in aqueous solutions were formerly employed, but were relatively rare. However, since 1958 there has been a considerable increase in the number of alarming reactions. During the 13 months preceding this communication, in which approximately 10,000 injections of penicillin (PAM and Bicillin) were given, the clinic patients experienced a total of 7 anaphylactoid reactions. There were 1 fatality, 3 near-fatal reactions, 1 moderately severe reaction, and 2 mild reactions. There were also 4 cases of angioneurotic edema with 1 near-fatal case, 1 moderately severe case, and 2 relatively mild cases. Patients who suffered delayed reactions to penicillin and returned days or weeks later with dermatologic lesions are not included in this report. In the fatal and near-fatal cases, severe respiratory embarrassment, accompanied by shock, necessitated artifical resuscitation and also the administration of oxygen.

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The alarming sequelae of symptoms triggered by an injection of penicillin stress the importance of being adequately prepared to anticipate and meet such emergencies. Minutes count when one is confronted with these crises. The suddenness, unexpectedness, and severity of the reactions are most likely to find the physician unprepared to deal with them promptly and adequately unless the necessary drugs, instruments, and equipment are closely at hand.

Penicillin should not be administered by intramuscular injection unless the patient can remain under close observation for at least 30 minutes following treatment, with a physician in close proximity to the treatment area.

Before ordering penicillin it is recommended that a careful history concerning previous allergic reactions to this medication be recorded. The antibiotic should not be given if the history reveals a previous penicillin allergic reaction. The patient should also be similarly questioned by any other individual authorized to execute the physician's order prior to the injection. If a penicillin allergy is elicited in this subsequent questioning, the patient should be returned to the physician and the injection withheld unless specifically reordered.

The most important and pertinent symptoms of previous allergy to be investigated are those dealing with itching, dermatologic lesions, dizziness, nausea, and intestinal cramps.

Experience has dictated that a single packet of drugs should be maintained in the physician's office or in any area where penicillin is given. This should include:

Medihaler-Epi with adrenalin inhalant
Adrenalin (1–1,000) solution ml. ampule
Benadryl hydrochloride (100 mg.) 10 ml. ampule
Aminophyllin (500 mg.) 20 ml. ampule
Vasoxyl (20 mg.) 1 ml. ampule
Solu-Cortef (100 mg.) or other cortisone equivalent
Sodium Amytal, 3¾ gr. and 7½ gr. ampules
Neutrapen (800,000 units)
Glucose 10 per cent in normal saline, 500 ml.

The emergency area should also have on hand, in immediately usable condition:

An intravenous administration set
Syringes, 10 c.c., 5 c.c., and 2 c.c., sterile packaged
Needles, 20-26 gauge, sterile packaged
Resuscitation apparatus, positive pressure
Airway, small and large
Tracheotomy tube
Standard life-saving tube
Aspirator
Surgical knife, hemostats, and suture material
Miscellaneous items, such as sphygmomanometer, stethoscopes, thermometers, padded tongue depressors, hot water bottles, ice caps, and blankets.

Each person giving intramuscular penicillin injections should have immediately available, in the treatment room, a Medihaler-Epi with adrenalin inhalant.

When anaphylactoid reactions and angioneurotic edema following intramuscular penicillin injections occur, it is recommended that the adrenalin Medihaler be used first, if the patient is able to coöperate. Usually 2 or 3 inhalations of adrenalin will suffice to relieve bronchial spasm or laryngeal edema.

If the prodromal symptoms are not allayed by this method an intravenous drip of 10 per cent glucose in normal saline should be initiated, in patients who can be physically controlled.

If the type and severity of reaction indicate further therapy, the physician should administer adrenalin through the intravenous drip or give 1 ml. of the drug diluted in 10 c.c. of 10 per cent glucose in normal saline intravenously. The adrenalin should be injected slowly until symptoms are relieved, with frequent blood pressure readings to avoid hypertension. Epinephrine should be used especially judiciously in hypertensives, cardiacs, and in those known to be sensitive to sympathomimetic agents. Reaction to adrenalin includes marked rise in blood pressure, tachycardia, throbbing headache, and excitability.

If symptoms are not alleviated, 500 mg. of aminophyllin and or 50 mg. of Benadryl Hydrochloride should be given.

If respiration is embarrassed, a respirator should be used with the rate kept at 18 to 20 inhalations per minute. If necessary, an airway may be inserted. Oxygen used with the respirator is helpful in severe cases, since hypoxia is usually present. Shock may be present from the beginning or may follow the acute phase. If the systolic blood pressure falls below 100 mm. Hg, 500 ml. or more of 10 per cent glucose in normal saline should be given by venoclysis. In addition, a vasopressor drug, such as Vasoxyl (20 mg.) 1 ml. ampule in an intravenous titration may be used. The rate of administration should be regulated to maintain adequate blood pressure levels.

Prednisolone and prednisone are reported to be of value in shock unresponsive to standard treatment. We have used Solu-Cortef (100 mg.), administered slowly, intravenously. At least 30 seconds is taken for the injection. (Existence of congestive heart failure, hypertension, diabetes mellitus, osteoporosis, or chronic psychiatric disorder requires Solu-Cortef or other cortisone preparations to be administered with caution.)

To neutralize the penicillin, 800,000 units of Neutrapen (penicillinase) may be administered intravenously. However, this drug has also been reported to be allergenic.

If obstructive laryngeal or glottic edema is present, the larynx should be intubated with a standard life-saving tube or, if required, a tracheotomy performed.

If convulsions occur, they should be controlled with Sodium Amytal adminstered intravenously in sufficient amounts.

Patients with severe reactions should be hospitalized following the emergency treatment, since the shock state may be recurrent.

Such therapy should materially reduce the number of fatalities which otherwise might occur following injection of an antibiotic.

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THE MULTIPLE GENESIS AND THERAPY OF PSYCHIATRIC DISORDERS*

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PROGRESS in the field of psychiatry has to some extent been limited by differences of opinion concerning the relative significance of the many variable factors known to influence mental health or forms of behavior. There have been 2 major approaches to genesis and therapy of psychiatric disease, the psychologic and the biologic. Depending on interest, however, each of these disciplines has been considerably fractionated, so that multiple specialized fields of endeavor have been pursued.

Although a simple cause and effect relationship has traditionally been attributed to somatic diseases which, on this basis, are believed to differ from psychiatric disorders, it should be pointed out that in the former also a multitude of etiologic factors may often be incriminated. For example, in diabetes, epilepsy, and certain vascular diseases there has long been strong evidence to indicate that genetic, psychologic, and biologic disturbances are all contributory. Since a multiplicity of factors may well be involved in the pathogenesis and or acceleration of "organic" as well as psychiatric disturbances, it would seem that the only real difference between the 2 disease classes is the present lack of objective criteria for demonsratting contributory etiologic organic disturbances in the latter. Yet, it is generally agreed that there can be no function without an organism; therefore, even though in various so-called functional neuropsychiatric disorders, measurable pathologic or biochemical changes may not be apparent, the brain cannot be excluded as the medium upon which, or within which, various internal and environmental influences exert their effects. It seems logical to assume that psychologic factors may alter central biologic phenomena in the susceptible individual to produce an abnormal behavioral response, although it may still be termed functional disease. The fact that the symptom-complexes of many of the so-called functional disorders may be closely simulated by such disturbances of specific energy-producing cerebral oxidative reactions as hypoglycemia, hypoxia, or drug intoxication lends support to the thesis that behavioral disorders may, in the final analysis, influence or result from the improper formation or utilization of energy by the central nervous system.

There are considerable neurophysiologic and neuropharmacologic data to indicate that the brain is not a metabolically homogeneous structure and that central neuronal transmission may be effected by several chemical agents (acetylcholine, norepinephrine, serotonin, and gamma-aminobutyric acid). Although exact criteria for identification of most of these substances as neurohumoral transmitters (e.g., demonstration of specific enzymes for their formation and rapid destruction, etc.) have as yet not been established, their varying concentrations in different brain regions strongly suggest such a role. The additional possibility of multiple receptor sites within the central nervous system for various neuropharmacologic agents, as well as the growing evidence that the latter may possibly exert their effects by influencing neuronal transmission (i.e., by formation, destruction, or utilization of neurohumors), reinforces the assumption that psychologic aberrations may perhaps gain expression by altering homeostasis of such sensitive physiologic mechanisms. In this regard, it may be of interest to point out that a purely emotional or psychologic experience may precipitate several well-defined neurologic syndromes, such as affective epilepsy, cataplexy, and narcolepsy.

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Recent biologic attempts at management of behavioral and emotional disorders have included administration of various neuropharmacologic agents, presumably to influence the activity of specific subcortical centers. Although individual agents may induce clinical modification of abnormal behavior, one is justified neither in attributing this effect to the action of such a drug on a specific receptor site, nor in concluding that the locus of drug action is alone responsible for the behavioral aberration. There is in the brain an exceedingly extensive and complex system of interconnecting neuronal circuits, and the physiologic activity of any specific region may be largely dependent on that of multiple brain areas; thus, excitation or inhibition of any one cerebral area must necessarily influence the activity of others. This may help to explain why the administration of drugs (phenothiazines, Rauwolfia alkaloids, meprobamate, etc.) having no chemical structural relationship and presumably exerting their primary effects in different central nervous system subcortical areas may induce similar clinical effects; hypothetically, the ultimate result may be due to modulation or inhibition almost anywhere along a common pathway. The different side-effects exhibited by the various categories of ataractic drugs (e.g., basal ganglia syndromes, muscular relaxation) do, however, most likely reflect their different primary sites of action within the central nervous system.

Although there are theoretically sound objections to the use of combinations of drugs for the management of clinical disorders in general, nevertheless in certain conditions this approach has facilitated treatment by virtue of simultaneous action upon different receptor sites and, because of potentiation of effects, has minimized the incidence of undesirable side-reactions. For example, in the treatment of grand mal epilepsy, it is common practice to prescribe both phenobarbital and hydantoin. Similarly, the management of certain behavioral disorders may also conceivably be facilitated by the simultaneous blocking of various subcortical receptor sites. This approach would seem therapeutically and physiologically more rational than efforts directed toward increasing the neuropharmacologic potency of a single agent by alteration of its chemical structure. As one might expect, there is frequently a direct relationship between potency of a drug and incidence of its undesirable side-actions, particularly those representing extension of therapeutic effects. Preliminary results using 2 ataractic agents in combination have demonstrated potentiation of effects, enhanced therapeutic effectiveness, and reduction of toxicity.

The fact that the simultaneous administration of 2 chemically dissimilar ataractic drugs produces a potentiation of effects probably indicates either more effective modulation or blocking of afferent impulses within the same associative pathway, or a similar influence on afferents having separate pathways. More specifically, there is electrophysiologic evidence suggesting that the phenothiazines may act primarily on the reticular formation, reducing the input to, or activity of, this afferent system, and that meprobamate may in some way regulate activity of, or output from, the thalamic projection system.

It is generally recognized that the cortical and subcortical centers are interconnected by centripetal and centrifugal pathways, so that modification of the activity of specific areas of the latter cerebral structures may alter both cortical input and output with the result that the salutary changes in behavior produced by ataractic drugs may be related to improved integration of neuronal activity throughout the entire central nervous system. One should, therefore, neither deprecate the tremendous importance of the various

(*Continued on page 469*)

SQUAMOUS METAPLASIA OF THE URINARY TRACT

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UNDERSTANDING the process of metaplasia in the epithelium of the urinary tract is of considerable importance to the pathologist and urologist alike, for it helps to clarify the histogenesis of certain tumors or the underlying disease. The renal pelvis, ureter and bladder are lined by stratified transitional-cell epithelium. This epithelium, when subjected to repeated or constant chemical, mechanical or bacteriologic stress, undergoes metaplastic changes. If these are allow to progress, leukoplakia soon ensues, and ultimately squamous-cell carcinoma may develop. The finding of squamous metaplasia makes it advisable to seek out the cause and to institute prompt effective treatment in order to prevent the ultimate secondary neoplastic changes. The 2 cases presented exemplify some of these principles. In the first case the underlying disease was tuberculosis. In the second case leukoplakia had already developed at the time of diagnosis, and prompt effective treatment was instituted in order to prevent ultimate neoplastic changes.

REPORT OF CASES

Case 1. A 30-year-old Negro was admitted to the Veterans Administration Hospital (no. 131926), Washington, D. C., on October 21, 1958 because of left renal colic. Intermittent left renal colic had been present for the past 18 months. The present episode was more severe. The urologic history dated back to 1950, at which time hematuria was noted, which cleared spontaneously without treatment. Hematuria had been present intermittently since that time. The first attack of right renal colic occurred in 1952 and had occurred intermittently on the right side since that time. Since 1950 the patient had passed "gas" in the urine. This pneumaturia was at the end of urination in almost every instance. Chills, fever and malaise were often associated with the attacks of colic and cleared after antibiotic therapy. Numerous hospital admissions revealed intermittent right-sided and left-sided ureteral obstruction, which cleared spontaneously following antibiotic therapy (figures 1 and 2). Previous urine cultures for tubercle

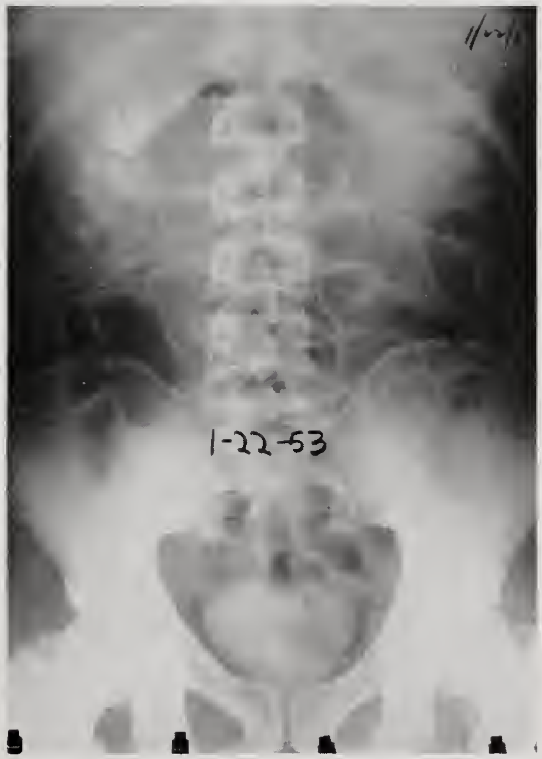

FIG. 1. Case. 1. Right hydronephrosis, cleared on nonspecific antibiotic therapy (January 22, 1953).

bacilli had been negative. There was no familial history of renal disease.

The blood pressure was 160/100 and while in the hospital fell to 120/80. Physical examination was negative except for severe tenderness in the left costovertebral angle.

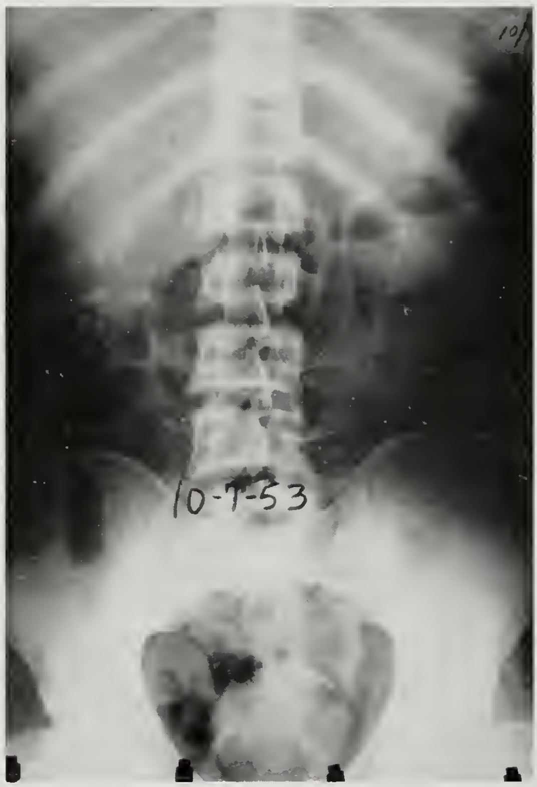

FIG. 2. Case 1. Left lower ureteral stricture with dilatation and tortuosity of ureter (October 7, 1953); stricture resolved on antibiotic treatment; urine culture for tubercle bacilli negative.

The white blood cell count was 10,000 with a normal differential. The hematocrit was 36 per cent. Urinalysis revealed the specific gravity to be 1.004, with numerous white blood cells and occasional red blood cells in the sediment. The blood urinary nitrogen was 11.8 mg. Uric acid, calcium and phosphorus determinations of the blood on numerous occasions were normal. VDRL was negative. The phenolsulphonphthalein test gave 5 per cent return in 15 minutes. Hemoglobin electrophoresis revealed 40 per cent hemoglobin C. There was no evidence of sickle-cell disease. Repeated urine cultures revealed Pseudomonas species. A roentgenogram of the chest was normal. Intravenous pyelograms revealed poor concentration bilaterally.

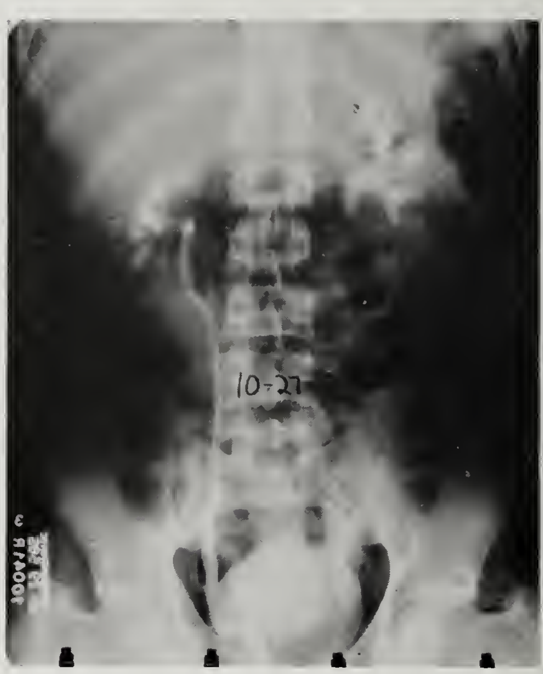

FIG. 3. Case 1. Left lower ureteral stricture with hydroureter and early hydronephrosis (October 27, 1958); irregularity of left collecting system more suspicious for tuberculosis; urine culture for tubercle bacilli still negative.

A cystogram revealed the urinary bladder to be normal, but there was reflux noted in the lower third of the right ureter. A gastrointestinal X-ray examination failed to reveal any intestinal communication with the genitourinary tract. A retrograde pyelographic examination showed ureteral strictures bilaterally with considerable dilatation of the left ureter and collecting system (figure 3), but there was good drainage of both ureters. Cystoscopy revealed a moderate trabeculation of the entire bladder wall. The bladder mucosa was pale and scaly, with numerous shaggy, silvery, adherent mucosal projections. On December 8, 1958 under general anesthesia left ureteroneocystostomy was performed. The strictured portion of the left ureter was excised for both histologic and bacteriologic study. The excised portion revealed complete squamous metaplasia (figure 4). A full-thickness bladder biopsy revealed squamous metaplasia and chronic cystitis. The postoperative course was complicated by prolonged urinary drainage. However, after several weeks the incision finally healed and the patient voided normally. Culture of the full-thickness bladder wall revealed the presence of *Mycobacterium tuberculosis*. The patient was placed on an antituberculous regimen consisting of para-aminosalicylic acid, 3 Gm. 4 times a day, isoniazid, 100 mg. 3 times a day, streptomycin, 1 Gm. intramuscularly twice a week, and pyridoxine, 25 mg. twice a day. He was then transferred to the Veterans Administration Hospital, Martinsburg, West Virginia, for further treatment. While under therapy he developed a right ureterovesical stricture which necessitated a meatotomy. He is expected to continue his antituberculous regimen for approximately 18 months. While on this regimen he remains asymptomatic, with a normal voiding pattern.

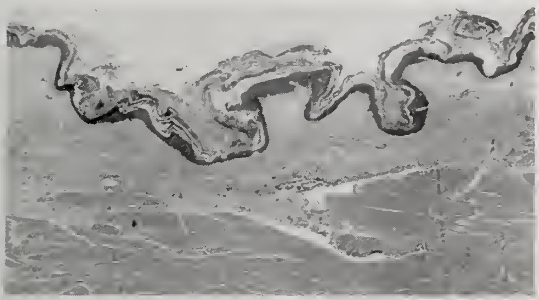

FIG. 4. Case 1. Full-thickness biopsy of bladder revealing squamous metaplasia and chronic cystitis.

COMMENT

Repeated urine cultures had not revealed evidence of tubercle bacilli. Full-thickness tissue biopsy revealed the diagnosis. The repeated obstructions of both ureters had cleared up on nonspecific antibiotic therapy until the resulting organic ureteral strictures necessitated surgical intervention. The passage of keratin per urethra is frequently misinterpreted by patients as the sensation of having passed gas during urination.

Case 2. A 65-year-old Negress was admitted to the District of Columbia General Hospital (no. 65813) on April 7, 1958 with the chief complaint of change in the color of her urine. She was well until 4 months prior to admission, when she noted the onset of anorexia, weight loss of 15 pounds, and the passage of milky urine. Intermittent passage of dark urine was also noted. Terminal dysuria occurred during this period. Gross hematuria and incontinence were denied. The urine had become foul-smelling. Nocturia had been present for years.

Twenty years before she had developed kidney stones, but these were not treated surgically and she could not recall which kidney they involved.

The blood pressure was 120/80. A smooth, firm mass was palpable deep in the right upper quadrant. The mass moved with respiration.

The white blood cell count was 8,200 with a normal differential, and the hematocrit was 44. The urine showed 1 plus albumin and a heavy sediment loaded with white blood cells. The blood urea nitrogen was 17 and 11 mg., and the other electrolytes were normal. The Kahn test was 4 plus and VDRL also 4 plus; the quantitative VDRL was 1:16. Urine smears were negative for acid-fast bacilli and culture of the urine revealed *E. coli.*

A roentgenogram of the chest revealed evidence of old pulmonary fibrosis, but no evidence of active tuberculosis. Intravenous pyelograms revealed a normal left urinary tract. There was marked hydronephrosis and hydro-ureter on the right side, apparently due to an obstruction in the right lower ureter. The concentration of dye on the right was markedly reduced and visualization was poor.

Cystoscopy revealed a papillary lesion in the region of the right ureteral orifice which was surrounded by an area of bullous edema. The right ureteral orifice could not be seen. It was not possible to catheterize the right ureter. The left ureteral orifice was in normal position with clear efflux of urine. The remainder of the bladder showed mild trabeculation with moderate congestion of the bladder mucosa. On April 11, 1958 transurethral biopsy of the papillary lesion was carried out. After the lesion had been resected the lumen of the right ureter could now be visualized and appeared to be plugged with tissue. An attempt to catheterize the right ureter was again not successful. The report on the tissue removed was acute and chronic cystitis. The clinical impression was that of a papillary tumor of the right renal pelvis or ureter. On April 22, 1958 a right transperitoneal nephroureterectomy was carried out. A generous cuff of bladder was removed along with the specimen.

The postoperative course was complicated by a superficial wound infection. The kidney showed marked hydronephrosis with considerable dilatation of the renal pelvis and of the entire ureter. The lumen of the renal pelvis and ureter was filled with a white, flaky, turbid material. The mucosa of the pelvis and ureter was thickened, ragged, opaque and white. The lumen of the lower ureter was completely obstructed by this material. Microscopically the kidney showed marked atrophy with chronic pyelonephritis. Histologic examination of the renal pelvis and ureter revealed marked squamous metaplasia with numerous papillary folds lined by a dense layer of keratin. The ureteral lumen was almost completely obliterated by the dense layer of lining keratin. The final pathologic diagnosis was acute and chronic ureteritis, marked, nonspecific, with ulcerations, hyperplasia and squamous metaplasia of the mucosa; leukoplakia of the renal pelvis, marked; hydronephrosis and chronic pyelonephritis.

(*Continued on page 470*)

PREGNANCY COMPLICATED BY ADDISON'S DISEASE AND Rh-ISO-IMMUNIZATION[*]

Report of a Case

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PREGNANCY complicated by chronic adrenocortical insufficiency is becoming less of a rarity. This is readily explicable when one considers that the 5-year survival for patients with Addison's disease has increased from 0 per cent to 95 per cent in less than 2 decades.[1] Chronic adrenocortical insufficiency is somewhat comparable to diabetes mellitus; in both instances replacement therapy is a practical accomplishment.

Sluder[2] in October, 1959 reported 2 cases with survival, and he stated that Kirk's case[3] reported in 1958 brought the number of known cases to approximately 80. He added 2 cases of his own.[2]

The following report is submitted at this time because it bears out the results of Hunt,[4] Sluder,[2] Kirk,[3] and others.[5] Kirk's patient was delivered by cesarean section. In the following instance, in addition to dealing with an unplanned cesarean section, there existed in the mother a high degree of Rh-isoimunization, an erythroblastotic fetus, and antepartum hemorrhage—3 stress situations which are potentially provocative of adrenal crisis. In spite of this, the patient had a course differing little from that of the average parturient.

REPORT OF CASE

Mrs. B. H. was initially seen by me in December, 1950, at age 20, at which time she was pregnant for the first time. Between 1950 and 1954 she was delivered of 2 full-term infants and had 2 spontaneous early abortions followed by curettage and an appendectomy for acute appendicitis.

She next reported in August, 1958, at which time she presented herself with clinical records from an Army Hospital in Japan, where a diagnosis of Addison's disease had been made in February, 1958. She was taking daily 25 mg. of cortisone in divided doses, 8 salt tablets, 1 multivitamin capsule, and 3 iron tablets. There were no complaints, and the purpose of her visit was to get a physical examination and to discuss the practicality of another pregnancy in view of her disease. General physical examination was negative except for facial and buccal pigmentation, which was not marked. Her weight was 120 pounds, the blood pressure 100/70, and the hemoglobin 13 Gm. A urinalysis was normal.

On February 28, 1959, the patient presented herself with a history of amenorrhea since December 27, 1958, 3 cycles after her previous visit. The physical findings were consistent with early pregnancy. There was slight vaginal spotting unaccompanied by cramps. The cervix was clean. There was neither nausea nor vomiting, and except for slight fatigue there were no subjective symptoms of pregnancy. The blood count and urinalysis yielded normal findings. Blood chloride was 105 mEq. per liter, sodium was 139 mEq. per liter, and potassium 4.9 mEq. per liter. Pregnancy was uneventful except that the weight increased from 114 to 140 pounds. The blood pressure remained 110/70 except for an isolated reading of 80/50. On September 8, 1959, at 36 weeks, the Rh antibody titer (cryptagglutinins) was reported positive in dilution of 1:256. There was no decreased activity of the fetus and neither hydramnios nor evidence of faulty fetal attitude. On September 16, 1 week later, the titer had risen to 1:512. The patient thought there may have been some decreased fetal activity, but she was not sure.

Because of the high titer, and in spite of an estimated fetal size of 2,500 Gm., and in the presence of an unfavorable cervix, the patient was hospitalized for attempted induction and delivery. Intravenous Pitocin, 7 minims in 500 c.c. of 5 per cent dextrose, was started at a slow rate, and contractions of good quality began almost immediately. Two hours after the onset of the induction there was brisk vaginal bleeding. There was no observable change in the cervix. The drip was discontinued, and observation of the vital signs was carried on for 2 hours. Bleeding continued, and it was estimated that at the end of 2 hours the patient had lost 400 c.c. of blood. Uterine tenderness, generalized or localized, did not develop. There was good relaxation of the uterus between contractions. At this time the fetal heart rate rose to 170 per minute from a previous rate of 148 per minute. A consultant agreed that cesarean section should be done. Hydrocortisone was administered, 150 mg. by intravenous drip and an additional 100 mg. intramuscularly. Low cervical cesarean section under general anesthesia yielded a 4-pound, 14-ounce (2,250 Gm.) female with an Apgar rating of 6. The placenta was implanted high on the anterior wall of the uterus, and it did not show evidence of premature separation. No uterine rupture could be visualized. The blood pressure remained 110-120/70-80 during the procedure. Hydrocortisone was continued intramuscularly, 200 mg. a day for 1 day, then cortisone orally, 50 mg. 4 times a day, with a gradual decrease to 25 mg. 3 times a day at the time of discharge on the fifth postpartum day.

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[*] Presented in January, 1960 as a requirement for full fellowship in the Washington Gynecological Society.

Laboratory Findings

Time	Na	K	Cl	CO_2
1st postpartum day	146 mEq.	5.1 mEq.	100 mEq.	18 mEq.
4th postpartum day	143 mEq.	4.4 mEq.	100 mEq.	26 mEq.

The pediatrician's note at birth read "vigorous female with slight icterus whose liver and spleen are not palpably enlarged." The following were the initial laboratory findings: hemoglobin 11.5 Gm., hematocrit, 39 per cent, 25 nucleated erythrocytes per 100 white blood cells, normal thrombocyte count, bilirubin 6 mg. per cent, direct van den Bergh 0.4 mg. per cent, indirect 5.6 mg. per cent, direct Coombs 4 plus. An immediate exchange transfusion was done. The serum bilirubin reached a maximum of 13.8 mg. per cent on the following day and then gradually decreased to normal levels. The hemoglobin gradually fell, reaching a level of 5.1 Gm. with a reticulocyte count of 0.7 per cent on the seventh day. Blood (50 c.c.) was administered on that day. The infant appeared clinically well, and she was discharged above birth weight on the eighth day. Ten days after discharge the hemoglobin was 4.9 Gm., but the reticulocyte response had returned to normal limits, 1.8 per cent. No more transfusions are contemplated, but monthly hemoglobin determinations are to be done.

COMMENT

Addisonian crisis is a life-endangering condition requiring immediate and energetic treatment.[6] Pregnancy presents situations which favor the development of Addisonian crisis. However, the situations accompanying pregnancy which are most likely to be attended by crisis—nausea and vomiting, labor, and the immediate postpartum period—have been described and treatment outlined.[7]

The increased feeling of well-being of patients with Addison's disease and pregnancy has been attributed by some writers to placental products and the action of the fetal adrenals. This is still a moot question.[5]

In reading case histories of patients with Addison's disease, one is struck with the frequency with which sterilization is carried out. As more information is acquired and more cases with good outcomes recorded there will be a decrease in reported postpartum sterilizations, which will bring the incidence of the procedure no higher than it is for women with diabetes mellitus.

SUMMARY

The case of a pregnant woman with chronic adrenocortical insufficiency and severe Rh-iso-immunization has been presented. Attempted induction of labor at 37 weeks resulted in antepartum hemorrhage which necessitated an unplanned emergency cesarean section. In spite of multiple provocative situations—hemorrhage, cesarean section, Rh-iso-immunization, the patient did not develop an Addisonian crisis.

The erythroblastotic infant, although premature by weight and subjected to the consequences of maternal blood loss and to general anesthesia, survived without presently demonstrable residuals.

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President's Page

THE PHYSICIAN AND HIS PUBLIC RELATIONS

It can safely be said that the need to maintain good public relations by the medical profession was never greater than it is today. We are living in an era of incredible advances in the science of medicine; the quality of medical care in this country is considered the best in the world. Can we say that our prestige is commensurate with our achievements? I don't believe we can. There has been a noticeable decrease over the years of the high esteem which previous generations had for their doctors.

American physicians know that socialistic or government medicine can never be as good for our people as private practice based on the free choice of physicians. In order to have continued public support for our position, it is imperative that we make private practice so attractive to the public that it will never accept anything else.

Much of the so-called "materialism" in the practice of medicine, which is criticized by many, is entirely beyond the doctors' control. A good physician who is inept in the business aspects of his practice cannot long survive in our modern economy. It isn't necessary that we try to project the old image of the devoted physician at the patient's bedside to merit the respect and esteem of our patients. But, on the other hand, we must not allow the wrong impression to develop that we are practicing the profession primarily for monetary gain. If we as individual physicians adhere to the strict code of ethics which is our heritage and succeed in developing a bond of friendship and mutual respect with our patients, medical practice will remain as we have known it, for the benefit of all.

What positive actions can we take to foster good public relations? Courtesy and professional concern with the patient's problems are paramount, both on the part of the physician and his office staff. We should maintain a neat and cheerful office and make every effort to keep appointments on time. We should give the patient a clear understanding about what he is to expect from treatment in terms of disability, of time, and of cost. We must evoke the feeling that our profession is anxious to serve the public and then prove it by serving it well. These things we can do as individuals.

Organized medicine can do much to improve public relations on a local, state, and national level. Our Society is acutely conscious of this, and our relations with the public are exceptionally good. Let me remind you of some of the things we do. The Medical Bureau is an organization whose service to the public is even more important than its services to physicians. Total strangers without medical contacts are daily given helpful information in obtaining qualified medical care. The Secretary and his staff are constantly answering a multitude of requests for help and advice sought by both individuals and organizations. The meeting rooms of the Medical Society are in constant use by civic organizations whose interests are closely allied to ours. The Committee on Public Information and Education has sponsored an annual meeting for office assistants and a dinner meeting with the Washington press. The Medical Emergency Disaster Service of the Washington Metropolitan Area is an organization geared to immediate action in the event of local disaster. We coöperate actively with the Health Department, the Red Cross, the D. C. Dental Society, and the D. C. Bar Association. The work of the Grievance Committee is of the utmost importance. I shall devote more space to this Committee next month.

Victor R. Alfaro.

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Editorials

THE DYING PATIENT

That some of the persons in his professional care will die is, in a sense, the distinguishing characteristic of the doctor's trade and is a common factor linking all branches and specialties of medicine no matter how otherwise diverse they may be. In spite of this, not a great deal of attention has been paid, in a formal or systematic way, to the clinical problems incident to the care of the dying patient, partly at least, because of the powerful emotions and the defenses against them aroused in healthy people by contact with the dying. Since emotions, and their intrapsychic and interpersonal manifestations, are the particular domain of psychiatry, it is reasonable to expect psychiatrists to have something to say about the problems which occur in connection with dying. The recent publication by psychiatrists of a number of contributions on the subject suggests an upsurge of interest which may be a response

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of the Medical Society of the District of Columbia

to the needs of the considerable groups of people who, alienated from religion as a meaningful experience, and influenced by the prestigious role of science in our culture, are likely to turn to the psychiatrist rather than to the minister to help them deal with matters of ultimate concern.

The physician whose patient has failed to respond to medical treatment and for whom realistic hope of recovery has been abandoned now has the duty of making as comfortable as possible whatever space of life remains to the suffering human being under his care. This includes the provision of appropriate pain-relieving therapeutic measures and the making and carrying out of decisions as to what the patient is to be told about his condition. In instances of prolonged dying, this may include the decision that life-prolonging treatment is no longer a gift but only a prolonging of agony, depriving the patient of an opportunity to die with dignity and leaving his relatives exhausted and terrified. It includes playing the role of advisor to relatives whose judgment may be impaired by grief and despair sufficiently to affect adversely the treatment or the care of the patient, who is the physician's primary concern. Above all, this includes a willingness on the part of the doctor to make himself the object, reliable and accepting, of the patient's dependent impulses and to encourage the flowering of these impulses so that a strong and trusting relationship can be established between the patient and himself.

The ability of the physician to carry out the grave and trying tasks outlined above will be in general terms a function of the degree of emotional maturity he has been able to attain and of the strength and warmth of his personality. He will also be in a more favorable position to help the dying if he can believe as both Freud and Heidegger did, from their different points of view, that death is somehow not the end of life but rather an integral part of the life process imparting meaning, depth and poignancy to it. However, whatever the nature of his philosophical views about death, the physician will be better able to cope with the problems of his dying patient if he is aware, within himself, of certain interfering factors, particularly the need to be omnipotent. The prospective death of one of his patients will act as a threat to the omnipotence of the physician (particularly if the physician has not learned to cope with his own death fears), a threat to which he may react in any of a number of ways. He may invoke the defense of denial, refuse to admit the inevitable, and engage in an onslaught of desperate measures which have no realistic hope of staying the disease process or effectively prolonging life, at the same time rationalizing his blindness with incantatory slogans. He may grow angry at the patient for threatening his omnipotence by being mortal, and either withdraw completely from the case or depersonalize the relationship by adopting a cold, impersonal and "scientific" attitude which will certainly be felt by the patient as malevolent and rejecting. By his inability to accept his own human limitations, such a physician deprives his patient of the opportunity of becoming dependent and thus of a powerful defense against anxiety. Another destructive potential of the omnipotent physician lies in the danger that he may unconsciously exploit the relationship with the dying patient in accordance with his own needs, as by imposing his own values, religious or otherwise, on a patient who is in no condition to resist such a disturbing psychic assault. In all such cases, it is only by insight into his own personality structures and by practice in observing the interactions between himself and others that the physician will be enabled to transcend his own limitations so that he can continue to be useful to his patient after he can no longer devote himself to efforts toward bringing about a cure.

To turn to the object of the physician's concern, his patient, it is clear that he is faced with the stupendous task of somehow coming to terms with the threat of non-being, of personal annihilation. Such a threat is of the utmost gravity and will call into play all the personality resources of the individual. These will be deployed in a manner characteristic of the individual threatened and his particular, unique method of coping with the world developed over the years as a resultant of his hereditary endowment and his life experiences. Thus, the manner in which an individual will react to a menacing illness is a highly individual matter, and it is for this reason that superficial questionnaires and moralistic generalizations about always telling or not telling a patient that he suffers from a fatal disease are of little value in guiding the physician in helping a particular patient who is faced with the problem, not as an abstract question but as an agonizing immediacy. The physician who has to decide how much to tell the fatally ill person in his charge must rely on his own judgment, aided by as full an understanding as possible of the personality make-up and the degree of ego strength or weakness of that particular patient and of his family circumstances.

When people are faced with illness or disability, and especially when this carries with it the threat of death, there is a very strong tendency for them, whether physicians or not, to employ the defense of denial, so that the doctor should make every effort to learn the vicissitudes that this ubiquitous defense may undergo and the various forms in which it may present itself. In the case of the patient with a fatal illness, denial may appear as a simple explicit refusal to face the facts or their consequences. Such an individual "knows" he does not have cancer and protects his ignorance by avoiding any reference to the subject and by doing what his physician suggests without asking questions. Other less absolute denials manifest themselves by a grasping at the straws of illusory improvement, by shopping around for new treatments and responding eagerly to them, or by demanding constant reassurance from physicians and relatives. In contrast to the patient who uses explicit denial, such a patient is likely to be overtly anxious and suspicious. Both guilty and depressive reactions, and reactions of blaming other people for the illness may be more subtle forms of denial, since, if one is sick because of one's own misdeeds or someone else's malice, a human agency is responsible in either case, and, thus, one can hope that what has been caused by human will may be cured through expiation or propitiation.

In each case, guided by his knowledge of the patient and the patient's life situation, the physician must make the decision whether to encourage or to combat denial. There are many people who cannot, without disruptive panic, face the fact that they must die, not sometime in the future, but soon. If the physician is sure that he is dealing with the patient's real fears and not with his own projected anxieties, he should make patients in this class as comfortable as possible with drugs, reassure them, allow them to regress to a dependent status, and permit them to go to their deaths without "knowing" that they are dying. There are other patients for whom it is a disservice to foster denial mechanisms. This group, often well-integrated and emotionally mature individuals, may actually be made more anxious if their tendencies to denial are encouraged, whereas they can be helped in their difficult task of maintaining equilibrium by a relationship with their physician in which their actual situation, though put in the best light realistically possible, is not falsified or glossed over. Sometimes such an individual, through engagement in an I-thou relationship with a gifted physician, can be helped to make his dying, paradoxically, almost a creative act, lending meaning and richness to the life which has gone before.

To spend time learning about the emotional reactions of dying patients and to devote psychotherapeutic effort to those in the process of dying may be unpalatable to many physicians, geared as they are toward curative efforts. However, it is the doctor's responsibility to see his patient through to the end. He can discharge this duty well or badly; to do it well he may find some benefit from the increasing experience of psychiatrists in the intense, complex, interpersonal processes which occur during the period when a human being is taking his leave of life.

PAUL CHODOFF, M.D.

MAIL-ORDER RX SCHEMES

It may be a long time before the patient who just walked out of your office with an important prescription in his pocket ever gets around to taking the needed medication; the reason — mail-order prescription schemes.

Now being heavily promoted all across the Nation, these schemes center their publicity on cut-rate prescription prices.

Here, for example, is what might happen to your patient.

Instead of taking his prescription to his community pharmacist to be filled that day, he drops it into the mail to one of these operations perhaps a thousand miles away. From 7 to 10 days later the filled prescription comes back, perhaps too late to do the job for which it was originally intended.

Your patient in the meantime, still experiencing the symptoms which prompted his visit to you in the first place, attempts to tide himself over until the prescription arrives by applying some sort of self-medication which may give him temporary relief and at the same time lessen his understanding of the importance of your diagnosis and the drugs you prescribed.

Not only are dangerous delays characteristic of the mail-order mechanism, but the public is also denied the complete services it has a right to expect from any pharmacist in any pharmacy. As a regular practice mail-order operators refuse prescriptions containing narcotic drugs. Most patients have no knowledge of what is and what is not a narcotic drug, and therefore any warnings by the mail-order house that it will not accept prescriptions for narcotic drugs become meaningless. The patient, after exposure to unnecessary delay, discovers that his prescription is only obtainable from his community pharmacy.

Prescriptions for narcotics are not the only ones which mail-order houses refuse to dispense. There are classes of prescriptions which are being refused by mail-order operators for their own convenience, especially prescriptions which require compounding. Both the ethics and traditions of the pharmaceutical profession demand that a pharmacist make every effort possible to dispense promptly every prescription he receives regardless of the amount of professional attention required.

Because these depots operate on an impersonal assembly-line basis in a jurisdiction where only the supervision rather than the actual dispensing by pharmacists is required, the danger of dispensing errors is increased. Moreover, by operating outside the states in which the prescription was originally written, these houses deny the patient the protection he has a right to expect from his own state laws governing the practice of pharmacy.

Another area in which the public is being misled is illustrated by quoting from a full-page advertisement which a District of Columbia mail-order operator inserted in *The Philadelphia Inquirer* of Sunday, April 3, 1960:

> "YOUR PRESCRIPTIONS ARE COMPOUNDED BY REGISTERED PHARMACISTS!
>
> "Our registered pharmacists compound your prescriptions in ultra-modern, regularly inspected pharmacies—using the finest, freshest nationally known ingredients.

"YOUR ORDER IS FILLED IMMEDIATELY TO ASSURE YOU OF FRESHNESS!

"The same day we receive your prescriptions—our pharmacists fill them and mail them out. This assures you of the freshness of every medicine you receive from us. And, of course, with our volume business and volume turnover, our shelves of vitamins and chemical ingredients are constantly replenished with fresh items."

After the publication of this advertisement it was revealed that the premises described consisted of nothing more than an empty room without any inventory, fixtures, or pharmaceutical equipment.

This advertisement was refused by two other large circulation newspapers, and the matter has been called to the attention of the Federal Trade Commission.

Perhaps as important as anything else to the medical profession is the fact that such schemes make it convenient for certain kinds of practitioners, unauthorized to prescribe in their own states, to write prescriptions that will be filled by these distant operations. The geographical separation between prescriber and dispenser makes it virtually impossible and impractical for these operators to check the source or to offer professional advice to the patient when he receives his medication.

The greatest opportunity for mail-order promotion has been the geriatric market, where public attention has been mostly concentrated in recent months.

A host of other unanswered questions come to mind when prescriptions are ordered from these assembly-line outfits. For example, how can we safely assume that long-distance dispensing will be as the prescriber intended? Is the way paved for substitution? Has the prescription been compounded under sanitary conditions?

The District of Columbia, where standards for pharmaceutical practice are based on an antiquated 1906 Act of Congress, has become the haven for mail-order operators.

One of these Washington-based firms was recently brought before the Corporation Counsel of the District of Columbia. The investigating officer described the premises as "without facilities for compounding prescriptions," and noted further that the only "sink was located in the rear of the store by going through a room that had waste paper for wrapping and packaging all over the place, and the room where the sink was located proved to be filthy and the sink itself was corroded and stained and in a filthy condition."

That these mail-order prescription schemes are truly a menace to public health was emphasized by a statement made by Dr. George M. Fister, a member of the American Medical Association's Board of Trustees, in an address to the recent meeting of the American Pharmaceutical Association's House of Delegates. Physicians, he noted, can easily warn their patients of the many flaws in these dangerous mail-order operations. He went on to condemn the mail-order schemes as "one of the gravest problems" facing the health field today.

A physician for more than 30 years, Dr. Fister said that he does his best to discourage any patients from sending prescriptions to a mail-order operation.

"The personal touch is still essential," he said. America's high standard of medical care was "founded on this firm foundation of personal service, and we would be foolish indeed not to preserve it."

The development of highly concentrated synthetic drugs, purified natural products, potent dosage forms, and special needs in storage and dispensing have all created new problems of drug supervision, regulation and administration. The pharmacy and drug laws of each state are designed to protect citizens from the effects of ignorance and incompetency in these matters which are beyond individual patient control.

The American Pharmaceutical Association has launched an educational campaign to inform all members of the medical profession about the inherent dangers in mail-order prescription operations. The national professional society is also supporting H.R. 10597, which will bring to the District of Columbia a modern pharmacy act.

At an emergency meeting in Washington, D. C., haven of the prescription-by-mail operators, Dr. William S. Apple, APhA Secretary, declared, "If this personal pharmacist-patient relationship is not preserved, the next break in the chain will inevitably be the elimination of the physician as the diagnostician and substitution of the mail-order purveyor as the prescriber. The only call on the physician will be to write the death certificate. Individual acceptance of professional responsibility by all members of the medical team can quickly put an end to the development of centralized mail-order prescription depots."

If mail-order prescription hazards are to be fully recognized, the medical profession must join with other members of the health team by reacting quickly and in a positive manner. Otherwise the public will be misled into believing that an impersonal centralized mail-order method is an acceptable substitute for sound community medical-pharmaceutical service.

William H. French
President, District of Columbia
Pharmaceutical Association

THE "ELSEWHERE" HOSPITAL

It is not uncommon but, on the contrary, very common to read in various case reports a reference to a patient that has had an operation which has left him with a more-or-less serious complaint for which he has been admitted to another institution, probably for another operation. The report appears somewhat as follows:

"Case 13. Mr. A. B. was admitted to the hospital April 1 with a duodenal fistula. He was operated upon elsewhere January 15."

Where is this "Elsewhere" Hospital and what does it mean by discharging half-cured patients? One may gather from reading the report of the case that such a result is a reflection on the first hospital and that such a thing could not happen to the hospital of the second admission. Judging from the number of maimed patients discharged from these "Elsewhere" hospitals there must be many of them, or one that is very busy.

Some consideration should be shown to those unhappy surgeons by omitting reference to "Elsewhere" Hospital, which will be identified if the surgeon keeps conversant with the literature. The only fair and decent thing to do, rather than resorting to "Elsewhere," is to get the record of the primary operation from the surgeon or the hospital and include it in the history of the case. There should be no reference to an unfortunate or unavoidable complication without a frank statement which would place the surgeon in the proper light.

There arise circumstances in many operations that necessitate modification of the anticipated procedure beyond the control of the surgeon, as, for instance, excessive hemorrhage, cardiac arrest, apnea, allergies, cerebral hemorrhage, just to mention a few. Surgeons have become suddenly ill, electric power has failed, and fires and storms have occurred during operations, any one of which events may be responsible for failure to carry out the proposed operation.

Let us close the "Elsewhere" Hospital. It is said, "Chickens come home to roost," and they sometimes bring a brood with them.

C. S. W.

THE DEMOCRATIC PARTY AND MEDICINE*†

M. BUTLER, LL.B

Chairman, Democratic National Committee

There is need for the record to be made clear here and now that the charge that the Democratic Party favors socialized medicine is utter nonsense. There is equal need, too, to make clear also that if socialized medicine should come to our country, it may well be that the medical profession itself may have brought it about.

My oldest son has forsaken the professions of his father, law and politics, to become a doctor, a goal which I hope with all fervor he will achieve, a noble profession which I hope he will honor and serve faithfully with unselfish and devoted work for the common good. So I start out by telling you that, despite the fact that I may be critical at times in this speech, I am friendly to your profession, and as a lawyer I am as much concerned about its freedom from Governmental control and regimentation as I am about my own profession of the law.

To me the general attitude of the medical profession toward the Democratic Party is a curious situation in view of the preëminent record of the Democratic Party in having sponsored virtually every movement in recent years to provide better medicine for all our people. Thus it would seem to me that the party of the people—for that is what the Democratic Party is—should be a natural political haven for you who are entrusted with safeguarding that precious asset of a people, their health.

Why, all too often, should the American Medical Association and the Democratic Party find themselves taking opposite stands on vital health issues? My fondest hope for my words here today is that just in some small way they may contribute to a better understanding of the problems that sometimes divide our respective organizations.

At the outset, may I define broadly the democratic feeling which underlies and governs our attitude toward health measures? It is simply that a basic duty of government is to provide for the people those essentials of life which they are unable to provide for themselves. Under the meaning of essentials certainly would come large-scale medical research, with the centralization and coördination such as are provided by the National Institutes of Health in Bethesda, Maryland, the largest such research center in the world. It was conceived and started by a Democratic administration.

Another example of necessary government action was the handling of the Salk vaccine to ensure that it was administered to a maximum number of people at a price they could afford.

This matter of price is important to our people. We know that millions of Americans go into debt to purchase medical care each year. We know that the average health insurance policy covers only about 25 per cent of the total cost of the average illness. Particularly is this cost of medical care a problem among the 16 million people who are 65 or over. Sixty per cent of our aged citizens have incomes of less than $1,000 per year. Only about 40 per cent of this age group have health insurance. Much of it is inadequate in its coverage and the rates are high. In fact, an official of the Los Angeles Suicide Prevention Center told a Senate subcommittee recently that the high cost of medical care is the most important reason for suicides among the aged. [At this point the speaker was roundly "booed."—Ed.]

Now, I take it that I am your guest and that you are going to agree with me, or disagree, and if any of you want to leave the room, feel perfectly free to do so. I hope that I may be given the courtesies of the previous speaker—without any of the applause.

MEDICAL CARE OF THE AGED

This [medical care of the aged] is a problem of national importance. It calls for governmental action of the kind I mentioned a moment ago to provide an essential of life which people are unable to provide for themselves. It calls for government action because no other form of action has been forthcoming to meet the problem. Neither the American Medical Association nor private insurance companies have come up with a workable substitute plan, although they have condemned two Democratic measures in Congress which would go a long way toward meeting the problem. I refer to the Forand and McNamara Bills, which would finance health insurance for the aged through the Social Security system.

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* Delivered before the Conference of Presidents and Other Officers of State Medical Associations at Bal Harbor, Florida, June 12, 1960.

† EDITOR'S NOTE: Mr. Butler's remarks aroused strong protests among physicians in attendance at the Conference. In view of the coming Presidential election they should hold special interest for readers of the MEDICAL ANNALS.

May I say, parenthetically, that I believe that the Democratic National Convention meeting in Los Angeles 4 weeks from tomorrow will approve the Forand Bill by name specifically.

May I remind you that the Social Security program itself, founded under President Franklin D. Roosevelt in 1935, was branded socialistic and worse by the same organizations which today apply similar labels to measures for caring for the health of our aged.

When I said that neither the AMA nor private insurance companies have offered a workable substitute for the Forand or McNamara bills, I want you to know that is not only my opinion. In April, 1959, President Eisenhower's Department of Health, Education, and Welfare had this to say: "The difficulties of providing hospitalization and health insurance coverage for the aged stem primarily from the fact that the aged require above average amounts of care and in general have below average incomes. Any large expansion of protection for the aged thus seems unlikely without some way of covering the costs by spreading them over other segments of the population and throughout the lifetime of the individual.

"There is a question, however, of how far voluntary effort and private industry can go in developing the kind of distribution of cost that would be needed to assure adequate protection to all or a great majority of the aged."

It is true that the Administration, after much pulling and hauling, and after much pressure from it own Party to come up with something to match the two Democratic measures, produced a health insurance bill of sorts for the aged, but it is a feeble thing indeed. It has been called an unworkable actuarial monstrosity, among other things. I believe that the worst aspect of the Republican measure is that it would require the individual beneficiary himself to pay the first $250 of his annual medical bill and 20 per cent of the cost above $250. Now, where does that leave the 60 per cent of our aged citizens who have incomes of less than $1,000 a year?

Even Republican Governor Nelson Rockefeller, of New York, has blasted the Administration plan. Only this week he described it as "basically unsound, costly and cumbersome." Earlier he had said that the heavy payments required by the states under the plan could mean "a very serious fiscal situation for them." Not only that, but he endorsed the Social Security approach of the Forand and McNamara Bills.

High Cost of Drugs

There is a second health situation making headlines today in which the Democrats have taken the lead and in which, again, we look over our shoulders in vain for support from the American Medical Association. I speak of the scandal uncovered by the Kefauver Committee in the drug industry—and I do mean scandal, for here is a situation in which the motive for high profits has actually deprived some Americans of drugs they need.

The Kefauver Committee heard testimony, for instance, that thousands of mental patients had to return to mental institutions because they could not afford the high cost of tranquilizer drugs on the outside. It was testified that CIBA, one of the larger drug firms, sold to druggists for $39.50 the same number of tranquilizer tablets it sold to the United States Government for 60 cents. It was brought out that the profit rate of the drug industry is the highest in the entire manufacturing field in our country. It was brought out that the Director of the Antibiotics Division of the Food and Drug Administration, Dr. Henry Welch, received $287,000 in the last 8 years, much of it from drug firms he was supposed to regulate, from his private publishing business. This business profited largely by selling reprints of its articles to drug firms. It was brought out that Welch solicited the firms to buy these reprints of his own articles. Welch has been allowed to resign from the FDA without official censure or reprimand.

It was also brought out that officials of the 20 largest drug companies gave $149,700 to the Republican Party in 1956 and $4,000 to the Democrats.

This latter is an interesting point when you consider that the Kefauver Committee undertook its investigation of the drug industry only when the Justice Department failed to act.

It is interesting, also, when one watches day after day the efforts of powerful Republican members of the Kefauver Committee to hamstring its operations, to keep the Committee from holding hearings at all, or to force it to hold secret sessions where the public can't see what is going on. Why, I wonder?

We Democrats would have welcomed the backing of organized medicine in seeking to bring this ugly situation in the drug industry out into the open. Instead we found, as quoted by John Lear in *The Saturday Review*, that officers of 4 state medical societies had telegraphed Republican Senator Dirksen, a member of the Kefauver Committee, that the doctor/patient relationship might be damaged if witnesses were allowed to criticize the drug industry in public. If that be so, gentlemen of the medical profession, why didn't the doctors themselves take the lead in cleaning up the situation in the drug industry?

We found also Dr. Austin Smith, former editor of *The Journal of the American Medical Association*, heading the powerful Pharmaceutical Manufacturers Association. Dr. Smith testified before the Kefauver Committee in defense of the drug industry.

I would like to speak clearly here. I believe that the moral tone of the drug industry and of a Republican administration which allows this situation to exist is not one with which the organized medical profession of this country can afford to ally itself. I believe the position of the drug industry is indefensible in the public mind. Medical associations, it would seem to me, can only demean the whole medical profession by taking any position which can be interpreted by the public as one of defending the drug industry.

Medical Education and Research

Now, it might appear to some, with the rising life expectancy among our people and the new technics available to our doctors, that the medical problems facing us have been reduced comfortably, but I believe the facts will not bear that out. For instance, the life expectancy of this country is fifth from the top among the nations of the world; our maternal mortality rate is only third best among the nations; our infant mortality rate is only tenth best. There are fewer physicians per 100,000 people in this country today than there were in 1921. We do not have enough hospitals or enough nursing homes, and the quality of the nursing homes leaves much to be desired. We do not have enough schools to train more doctors. Millions of Americans are in debt for medical care and millions more put off treatment because of the fear of debt. Heart disease kills 900,000 Americans each year. The cancer death rate is 260,000 lives a year now. We need more and better medical research, but consistently, ever since President Eisenhower took office in 1953, his Administration of Republicans in Congress have opposed the necessary increases in medical research funds.

"It would be nice to be healthy," say the Republicans, "if it didn't cost so much." We Democrats believe that it costs too much not to be healthy.

Disease costs this country about $35 billion a year, $20 billion for medical care and $15 billion in lost wages and lost taxes.

Over the last 8 years the Democratic Party has significantly expanded our Nation's medical research. The first budget submitted by the Republican Administration severely cut the medical research expenditures proposed in the last of the Truman budgets. Each year since the Democratic Party has rejected inadequate Administration proposals and considerably increased funds for medical research. While the $400 million Administration budget for medical research during fiscal 1960 is a vast improvement over the $50 million recommended by the Eisenhower Administration early in 1953, the amount of $400 million is still a relatively small expenditure when related either to the Federal research expenditures generally or to the specific annual cost of disease. With the great increase in Federal research and development expenditures since World War II, medical research has barely held its own at about 5 per cent of our total research expenditure. The Federal medical research expenditure is only about 2 per cent of the accepted cost of disease figures.

A year ago the Senate Appropriations Committee appointed a committee of medical and lay leaders to conduct a comprehensive study of the exact capability of this Nation in the field of medical research. This group, reporting last month, said:

"The proportion of the national income now devoted to health research is small in relation to the need and to the great economic return which has come from medical research in the past.

"The Committee is confident that the Nation will support any level of research for which the men and ideas are available."

The Committee recommended $664 million for the medical research programs of the National Institutes of Health during fiscal 1961, an increase of $264 million over the present figure and over the sum recommended by the Administration.

The Committee went on to predict that by 1970 the total support of medical research in this country may very well require annual expenditures of $3 billion, of which more than $2 billion, in all likelihood, will be provided by the Federal Government.

The Republican Administration has constantly neglected the development of a major medical research program in the Veterans Administration, with its 122,000 beds located in 170 hospitals all over the country. In the early years of the present Administration, the VA medical research program struggled along with an annual allocation of about $5 million, compared with an annual VA hospital budget of $800 million. Over the last five years Democratic leadership in both Houses of Congress has concentrated on lifting the level of the VA medical research program. By 1958 it had reached $15 million, but the Administration cut it back to $11 million last year.

You well know that there is a critical shortage of doctors in America today. Most recent estimates are that we need a minimum of 25,000 more doctors to provide adequate medical care for our growing population. Ever since 1949 the Democratic leadership in Congress has been trying to pass legislation to expand the capacity of our medical schools to train more doctors. Such legislation passed the Senate on two occasions during the Truman Administration but was bottled up in the House, I am sorry to say, by the combined opposition of the Republican leadership and the American Medical Association.

In 1951 Senator Robert Taft joined forces with the AMA to defeat an Aid to Medical Education Bill which he had originally sponsored.

Again I ask, why does the AMA take this position?

In 1958 Dr. Leroy Burney, Surgeon General of the United States Public Health Service, rang the alarm bell on the doctor shortage when he told the American College of Surgeons that the balance between doctors and patients in this country was "at the peril point." But the alarm did nothing to bring a legislative proposal from the Administration. Instead that famous Republican delaying tactic, the study group, was brought on to the scene and valuable time was lost while they studied instead of acting.

Another serious problem now is that of attracting students into the field of medicine. With the rising cost of tuition at medical schools, a medical education is being restricted increasingly to the sons and daughters of high-income families. Since 1950 the number of applicants for medical schools has dropped by one-third, a startling indication that the cost of medical education is an increasing obstacle to the recruitment of able students. A recent study showed that one-third of all medical school graduates are at least $2,000 in debt upon completion of their education and 17 per cent of the medical graduates have debts of $5,000 or more.

As I said at the beginning of this talk, I hope my words contribute in some part to a better understanding between your professional organizations and the Democratic Party. I assure you that there is action being taken in the Democratic Party to back up my words.

ADVISORY COMMITTEE ON HEALTH

Within the last month the Advisory Council of the Democratic National Committee has established an Advisory Committee on Health under the chairmanship of an eminent heart surgeon, Dr. Michael E. DeBakey, head of the Department of Surgery at Baylor University, and recipient of the Distinguished Service Medal of the American Medical Association for a brilliant 6-year project which demonstrated conclusively that many kinds of strokes can be treated surgically.

I am proud to say also that this Committee includes many other distinguished members of the medical profession. Among them are 3 Nobel Prize winners in medicine: Dr. Selman A. Waksman, who won the award for his discovery of streptomycin; Dr. Philip S. Hench, honored for his discovery of cortisone; and Dr. Dickinson W. Richards, recognized for his discovery of a new method of diagnosing heart disease by the insertion of a tube into the heart.

The purpose of our Health Committee will be to provide searching inquiry into the health needs of our country. I am sure that the work of the Committee will be of value to your profession as well as to the American people as a whole.

In closing, may I say that I am immensely proud of the accomplishments of the Democratic Party in the field of medicine. I believe our record shows clearly that we have searched for the real problems confronting our Nation in the Medical field and that we have sought intelligent solutions to those problems and intelligent advice. I believe further that Democratic programs in providing medical care for those unable to provide it for themselves, in providing for medical research, in providing for more medical training, deserve the support of doctors and related professions, indeed the support of all those interested in seeing that there is enough good medical care for all of the American people.

There is every reason, I say to you, my fellow Americans, why all of us should work together in this most important field for the common good, and I thank you for your very polite attention.

DR. LARSON TO HEAD AMA IN 1961

Dr. Leonard W. Larson, nationally known pathologist of Bismarck, N.D., was unanimously elected President-elect of the American Medical Association by the House of Delegates during the 114th Annual Meeting in Miami Beach. He will take office at the Annual Meeting in New York City in June 1961.

Dr. Larson is a graduate of the University of Minnesota School of Medicine (1922). Following a brief period of general practice in Northwood, Ia., he returned to the University for postgraduate work in pathology. He joined the Quain and Ramstad Clinic in Bismarck in 1924. He was elected Chairman of the AMA's Board of Trustees in 1958, following 8 years of service on the Board. He was a member of the House of Delegates from 1940 to 1950.

Dr. Gerald D. Dorman, New York City, was elected to the Board of Trustees to fill the vacancy created by the election of Dr. Larson as President-elect.

Dr. Julian P. Price, of Florence, S. C., was elected Chairman of the Board of Trustees. Dr. Price, who has served as Vice Chairman of the Board for the past 2 years, has been a member of the Board since 1953. He was editor of the *Journal of the South Carolina Medical Association* from 1941 to 1953 and has contributed numerous articles to other medical journals.

Dr. E. Vincent Askey, of Los Angeles, was installed as the 114th President of the Association in impressive ceremonies at the Hotel Fontainebleau, June 14. Dr. Louis M. Orr is the retiring President.

LEONARD W. LARSON, M.D.
President-elect of the American Medical Association

The AMA's Distinguished Service Award went to Dr. Charles A. Doan, who is retiring as Dean of Ohio State University College of Medicine, where he has headed the University's research in leukemia, Hodgkin's disease, and aplastic anemia. He is an international authority on hematology and blood diseases.

Dr. Rene J. Dubos received the $5,000 Passano Award for 1960. This award of the Passano Foundation, created to encourage medical science and research, is sustained by contributions from The Williams & Wilkins Company, publishers. Dr. Dubos, who has been a member of the Rockefeller Institute for Medical Research since 1944, received the award in recognition of his researches in bacteriology and biochemistry. A native of France, he has been the recipient of many awards for his work in the fields of tuberculosis, tropical medicine, pediatrics and public health. He is Past President of the Harvey Society and the Society of American Bacteriologists.

The 1960 Clinical Meeting of the AMA will be held in Washington, D. C., November 28–December 1, 1960. The next Annual Meeting is scheduled to be held in New York City, June 26–30, 1961.

ANNUAL REPORT ON ADMINISTRATIVE SERVICES OF MEDICAL SERVICE*

In the administration of a prepayment medical care plan, there is nothing as constant as change, and a change of subscription rates generates as much or more activity than any other. From January 1959, at which time the Board of Trustees directed the Administration to develop rates which would support new benefits for office surgery and the increased utilization of all benefits, until December 1, at which time the new rates went into effect, our administrative activity accelerated at a rapid rate. Actuarial consultants were supplied with data on utilization trends, studies were conducted to determine the rate of increase in the use of services for which benefits were being provided, a public relations program was designed to inform subscribers of the reasons for the increase, representatives of Medical Service met with the press, radio and TV, necessary advance notice was given to subscribers, and invoices reflecting the new rate were being distributed to groups in October to provide for the necessary advance payment to be made in November for coverage beginning December 1, 1959. While this concentrated activity was going on, business continued as usual.

Physician participation in Medical Service continues to increase and, at the present time, there are 2,402 physicians participating in the program, or 100 more than at the same time last year. Forty-eight physicians are serving on various committees and the Board of Trustees. Such participation in the activities of Medical Service by practicing physicians is unique with Blue Shield Plans, and provides physicians with a strong voice in the management and direction of their own prepayment program. Physicians are constantly contributing their time and interest to the medical problems affecting the program, and the voice of the physician in the affairs of Medical Service should help to assure the public that the medical profession can itself provide a prepayment mechanism for medical care under a free enterprise system in the public interest.

Milestone in Enrollment

During 1959 Medical Service of D. C. passed an important milestone when enrollment exceeded the three quarters of a million mark. This remarkable growth has been attained in little more than a decade, and is a reflection of the confidence of the people in Washington in the ability of physicians to develop and maintain an acceptable program for the prepayment of their services. At the end of 1959, there were 752,222 persons enrolled in Medical Service, a net gain of 50,254 for the year. Of those enrolled, 427,000, or 56.6 per cent, were enrolled under the Surgical-Medical Contract, and of these, 61,000 had Major-Medical coverage.

The enrollment report for all Blue Shield Plans for the year of 1959 shows Medical Service of D. C., with a figure of 68.35 per cent leading all other Blue Shield Plans in the percentage of the population enrolled. This leadership in enrollment has a significant effect upon the practice of physicians in the Washington area, since a greater percentage of your patients are enrolled in Blue Shield than is the case elsewhere. The greater the number of patients enrolled in a prepayment program, the greater the number contributing to the cost of medical care who might otherwise pay little or nothing at all for the services they receive. As even greater percentages of the population become enrolled in Medical Service, the participation and interest of physicians should also increase. It is encouraging that a program for the prepayment of medical care, which was originated by physicians, and which is responsive to physicians who participate actively in it, is by far the most prominent program for the prepayment of medical care in this area. I cannot help but feel that physician participation in the affairs of Medical Service is largely responsible for the confidence in the integrity of the medical profession, which is expressed by the public through enrollment in the doctors' plan.

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* Presented at the Annual Meeting of Participating Physicians of Medical Service of the District of Columbia, April 27, 1960.

When the Federal Employees Health Benefits Act goes into effect, July 1, 1960, the visible effect upon the enrollment figures of Medical Service of D. C. may be discouraging. At that time, approximately half of the people enrolled in Medical Service will no longer be known as subscribers to Medical Service of D. C., but those who choose to be covered under the Service Benefit Program will become enrolled in a national Blue Cross-Blue Shield account. However, for purposes of income allocation, it will be necessary for Federal employees in certain geographical areas to be assigned to a local Plan, and it is expected that our enrollment figures will be restored accordingly. After the Federal Employee Program has been operative for a sufficient length of time, it is expected that the enrollment factor for local Plans will be determined by the claims experience which is developed locally. Obviously, Medical Service of D. C. has real concern about the numbers of Federal employees who enroll in the Blue Cross-Blue Shield Program, since the voice of the local medical profession in the development and operation of the Federal Employee Program will be strong or weak in relation to the number of Federal employees served by Medical Service, or by programs in which the medical profession has no voice.

It should also be noted that the steady increase in enrollment in prepayment programs has been accompanied by a broadening of the scope of benefits provided, with a consequent increase in the cost to the subscriber. The fact that enrollment continues to increase at a time when the cost continues to rise reflects the acceptance by management and labor of prepayment mechanisms for the financing of medical care as a part of the American way of life. Where individuals might be unable to set aside funds to prepay medical expense of such broad scope, employers are contributing all or part of the cost as a fringe benefit for employees, and labor contracts provide for increased health care benefits as often as they do for increased wages. The most notable example, of course, is the Federal Employee Program through which a portion of the employee's subscription rate is borne by the largest employer in the world.

CONGRATULATIONS TO DR. HERBST

DR. WILLIAM P. HERBST (right) received a warm handclasp from DR. HARRY H. KERR, pioneer in the cancer control movement, when he was elected President of the D. C. Division of the American Cancer Society, June 9. Dr. Herbst will take office on September 1. Story on page 463.

CLAIMS

During 1959 our Claims Department processed 332,689 claims, or approximately 1,315 every working day. This claims load represents a 20 per cent increase over our claims experience in the preceding year, and reflects in part the increased use of physicians' services by patients who have experienced a release of economic restraints. Claims paid for services rendered outside the hospital continue to increase as more and more subscribers enroll or change over to the Surgical-Medical Contract, and the recent expansion of benefits under both the Surgical and Surgical-Medical Contracts to provide coverage for surgical procedures outside the hospital without limitation increased still further the percentage of our total business represented by out-of-hospital services. In 1959 approximately 23 per cent of our total claims expenditure was for services rendered outside the hospital.

OPERATING COSTS

Despite the increase in claims incidence and the disproportionate cost of processing claims for minor procedures, Medical Service kept its operating expense to 8.6 per cent of earned subscription income, a factor identical with that of the preceding year. The reported operating expense of all Blue Shield Plans amounted to 9.97 per cent of earned subscription income. Thus, Medical Service once again is able to report operating cost factors substantially below the average for all Blue Shield Plans, despite the problems of processing a wide variety of claims for a wide variety of services and the complexity of collection and accounting procedures which, for the most part, are not subject to payroll deduction economies.

Medical Service operates simply and without waste. The Board of Trustees receives no compensation for its services, physicians serving on committees provide their time and advice without remuneration, there are no commissions paid salesmen or Plan representatives, and there are no dividends to be paid out to stockholders. Whenever possible, the organization's income is reserved for the payment of claims. Medical Service contracts with Group Hospitalization to perform as its agent in the administration of its program and once again we have reason to take satisfaction in the manner in which the administrative details of a growing changing operation have been performed. Despite the extra burden of a rate increase to subscribers, and the preparation for a transition in enrollment on the part of Federal employees, the record of the administration in 1959 has been exceptional.

We are now lifting our sights to face the problems and challenges which will confront us in 1960, and we are confident that the Administration will maintain the same high standard of excellence and personal interest in the development of a sound and effective prepayment program which it has demonstrated in the past.

GEORGE B. MCGOVERN
Executive Vice President

BLUE SHIELD STUDY COMMISSION

The establishment of a Blue Shield Study Commission was announced by the National Association of Blue Shield Plans, June 21. It will undertake a major study of the "differences of concept and coverage" among the Nation's 75 Blue Shield Plans which "have resulted in different approaches to the problem of providing adequate protection to the public."

In announcing the appointment of this new Commission, Dr. Donald Stubbs, Chairman of the Board of the National Association, pointed out that while the setting up of this Commission was directed by the Annual Conference of Blue Shield Plans in Los Angeles in April, its area of study and recommendation is logically related to the action of the AMA House of Delegates, in Miami on June 15, in reiterating AMA support of the Blue Shield concept and providing for strengthened liaison between AMA and Blue Shield Plans.

"The job of this new Blue Shield Study Commission," said Dr. Stubbs, "is to identify and pinpoint the specific problems that must be solved and the needs that must be met within Blue Shield if it is to be able to extend the broadest possible medical prepayment protection, under medical auspices, to the greatest possible number of people, and thus make the maximum contribution both to the public welfare and to the free practice of medicine."

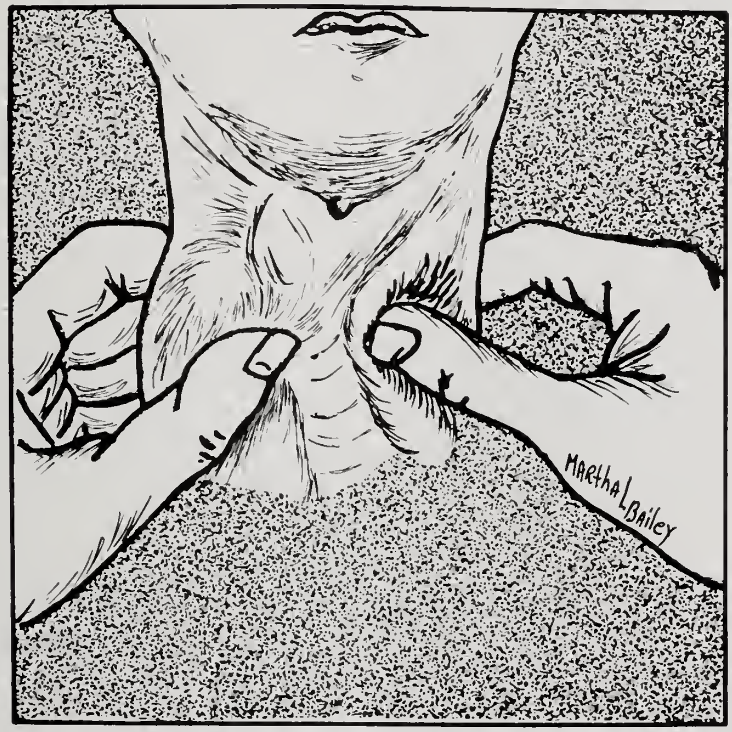
Chairman of the 9-man Commission is Dr. Henry S. Blake of Topeka, Kansas.

Three of its members are the AMA representatives on the Board of Directors of the National Blue Shield Association: Dr. David B. Allman, of Atlantic City, N. J.; Dr. George M. Fister, of Ogden, Utah; and Dr. Dwight H. Murray, of Napa, Calif. Other members are Dr. Carl R. Ackerman, of New York City, Board Chairman of the New York City Blue

(*Continued on page 470*)

DOCTOR!

When Examining the Neck



Bear in Mind:

I. 15 per cent of single nodules of the thyroid are cancer.
5 per cent of multi-nodular goiters are malignant.
II. Most thyroid cancers are slow-growing.
III. Cure rate is high if diagnosed and treated early.

Physicians are invited to order copies of a monograph, "Cancer of the Thyroid." A film, "Cancer of the Thyroid," which presents types of thyroid cancer and current status of surgery, radiation, and radioactive iodine therapy, si available for loan. Call or write:

American Cancer Society
District of Columbia Division, Inc.
810 18th Street, N. W.
Washington 6, D. C.
EXecutive 3-3690

On the Lighter Side

August is hot and full of dog days. The grass that seemed so green in June is now seared and patched with brown. The corn in the fields has a wilted look, but the tobacco plants are healthy and strong with their budding tops ready for the knife. Although August is still summer I have had the feeling ever since schooldays that this is the month when fun is over, summer is dying, and with its demise arrives that in-between-time September. In September we can look forward to the end of the baseball season, the beginning of football, the time of the year when all the small fry get washed, dressed and spruced up for the beginning of school. September also brings with it a certain coolness in the weather that argues for indoor sports, warmer clothes, the resumption of staff and other medical meetings. But here it is August, and already the duckpin bowlers are beginning to get restless awaiting the September opening of the new bowling season.

The recent tabulation of the 1960 census indicated that the city of Washington and its immediate metropolitan area—especially the latter—had a great increase in population. The people have been moving to the suburban areas in greater numbers than ever before, and along with them there have been more and more M.D.'s and dentists locating homes and offices in these outlying areas. Many of these doctors and dentists are duckpin bowlers. Many have been or are now members of the D. C. Medical-Dental Duckpin Bowling League and find that it is a real hardship to have to drive across the city of Washington from one suburban area to another in order to enjoy a few hours of bowling with colleagues every Friday night in the D. C. Medical-Dental Duckpin Bowling League as now established in Bethesda, Maryland. Therefore, a new Doctors' League is in the process of formation, which will inaugurate its season in September at the Lafayette Bowling Alleys, located centrally on Eye Street, N.W., near the Medical Center; for 1960–61 the time will be Friday night beginning before 9:30 p.m., or thereabouts. Of course, after the League gets organized the night and the time can be changed by the membership if it so desires.

The Lafayette Alleys were originally reserved for the D. C. Medical-Dental Duckpin Bowling League following the first captains' meeting in the spring. At this time the captains of the teams voted to change bowling alleys for the season of 1960–61. However, at a subsequent meeting the captains reversed themselves and decided to remain at the Bethesda Forty Bowling Alleys for a third season. Therefore, the new Doctors' League will assume the obligation and roll at Lafayette.

The guiding genius and master mind behind the new League is that same indomitable and indefatigable Dr. George A. Resta, who had so much to do with the formation of the D. C. Medical Duckpin Bowling League 20 years ago—when it was impossible, almost, to get more than 4 or 5 teams together. However, Dr. Resta performed the impossible and the D. C. Medical Duckpin Bowling League eventually grew to 16 teams with recognized status from the national body. Now, with bowlers living in the metropolitan scattered areas, Dr. Resta believes it is time to form a new Doctors' League to roll in a more centrally located area so that all bowlers who live a "piece out" can reach the alleys in a reasonable length of time—traveling time, that is.

Dr. Resta has stated that all duckpin bowlers are invited to join the new Doctors' League providing they are physicians, dentists, pharmacists, and/or members of an allied profession. Individual bowlers as well as complete teams are welcome, regardless of bowling averages. The new League is primarily for recreation and fun for the hard-working professional men and no one will care if a bowler rolls 75 or 175 per game. The *esprit de corps* is the thing!

The existence of 2 medical duckpin leagues has great possibilities. Imagine, if you will, an end-of-the-season series between the first 5 teams of each League. Imagine a joint banquet as the climax of the bowling season. If the members of both Leagues so decide, it could be an affair to which we could bring the wives or sweethearts who are so patient with us duckpin bowlers, and so self-sacrificing every Friday night. Maybe a little dancing and music could go along with the cocktails and food. And if the treasury could stand it, maybe a little entertainment could be arranged. Anyway, don't forget to sign up for the new Doctors' Duckpin Bowling League for 1960–61!

J. EARL KADAN, M.D.

News and Personals

MEETINGS

The Fifth International Congress of Nutrition, to be held in Washington, D. C., September 1–7, 1960, will attract nutrition scientists from all over the world. Headquarters hotels will be the Sheraton Park and the Shoreham.

An all-day symposium on World Food Needs and Food Resources will be one of the main features of the scientific program. The scientific sessions will be supplemented by industrial and institutional exhibits and visits to laboratories and other places of interest in the Washington area.

The Congress is being arranged under the auspices of the International Union of Nutritional Sciences, the American Institute of Nutrition, and the U. S. National Committee, International Union of Nutritional Sciences of the National Academy of Sciences–National Research Council.

Theodore Wiprud, Secretary of the District Medical Society, is serving on the Committee on Public Information.

GENERAL NEWS

The Secretary of the Board of Medical Examiners of Maryland has requested that the following notice be inserted in the MEDICAL ANNALS:

"The State of Maryland has reregistration of physicians triennially. This law became effective June 1. All physicians who possess a license to practice medicine and surgery in Maryland who have not received a registration application from the Board of Medical Examiners of Maryland by September 1, 1960, should notify the office of the Board immediately. This also includes physicians living out of state who possess a Maryland license to practice medicine and surgery and who wish to keep their Maryland licenses active."

Dr. William P. Herbst was elected President of the **D. C. Division of the American Cancer Society,** June 9. The election took place at a meeting of trustees of the Society, immediately following the annual meeting held in the auditorium of the D. C. Medical Society.

An incorporator of the D. C. Division, Dr. Herbst has served the Cancer Society for 15 years as a member of its Board of Trustees and as an active volunteer in the education and service programs of the Society. He was this year's recipient of the St. George Medal for outstanding service in cancer control.

Dr. Herbst is Clinical Professor of Surgery at Georgetown University School of Medicine. He is President of the Mid-Atlantic Section of the American Urological Association and Chairman of its Research Committee.

Other officers elected by the Cancer Society were: Mr. Philip A. Hanigan, Jr., Dr. Harold W. Krogh, and Mr. Frank H. Weitzel, Vice Presidents; Dr. C. Roger Kurtz, Secretary; and Mr. Frederick P. H. Siddons, Treasurer.

Among those elected to the Executive Committee were Drs. J. Keith Cromer, Ernest A. Gould, John P. Haberlin, Harry H. Kerr, Calvin T. Klopp, Jack E. White, and Theodore Winship.

Elected to serve a 3-year term on the Board of Trustees were the following physicians: Drs. Cromer, Gould, Alfred A. J. Den, I. Phillips Frohman, and Robert S. Jason. Dr. Hugh H. Hussey was elected to serve for a 1-year term. Three members of the Medical Society were among those who received bronze placques in recognition of their volunteer service, namely, Drs. Gould, Ralph M. Caulk, and Paul B. Cornely.

Dr. John W. Latimer, Jr., was elected President of the **Washington Heart Association** at election of officers, June 27, in the Board Room of the Association. He succeeds Dr. William L. Howell.

Dr. Latimer, a native Washingtonian, is an alumnus of George Washington University School of Medicine. He received training in internal medicine and cardiology at Garfield Memorial Hospital, at Tilton General Hospital, Fort Dix, N. J., and at Pennsylvania Hospital in Philadelphia. He is Assistant Clinical Professor of Medicine at George Washington University, Assistant Cardiologist at Doctors Hospital, and Attending in Medicine at the Washington Hospital Center. For the past 10 years he has been an active member of the Board of Directors of the Association, serving on many of its committees, and during 1959-60, as Vice President of the Association.

JOHN W. LATIMER, JR., M.D.
President of the Washington Heart Association

Other officers elected were the Honorable Hyde Gillette, Vice President; Dr. Henry D. Ecker, Secretary; and Mr. Kenneth Birgfeld, Treasurer.

Reëlected for 3-year terms on the Board of Directors were the following physicians: Drs. Howell, Latimer, Hill Carter, John W. DuChez, John M. Evans, John F. Finnegan, and Benjamin Manchester.

The Rheumatism Society of the District of Columbia elected new officers on May 26. They are:

Dr. Elbert T. Phelps, *President*; Dr. Raymond Scalleter, *Vice President*; and Dr. William R. Felts, Jr., *Secretary-Treasurer.*

The following officers will serve the **District of Columbia Dental Society** for the year 1960-61:

Dr. Gustav O. Kruger, *President*; Dr. Israel Shulman, *President-elect*; Dr. James P. Kerrigan, *Vice President*; Dr. Balfour D. Mattox, *Secretary*; and Dr. Woodson T. Birthright, *Treasurer.*

Dr. Shulman will head the Society in June 1961.

Group Hospitalization, Inc. and Medical Service of D. C. moved into new quarters at 14th and L Streets, N.W., June 20. What will be known as the GHI Building was purchased from the Government Employees Insurance Company in February and since then has been renovated to meet the needs of GHI. The new quarters contain approximately 48,000 square feet of office space. The telephone number remains the same, Republic 7-4500.

The building to house the **Division of Biologics Standards** of the Public Health Service's National Institutes of Health in Bethesda was dedicated, June 30, in ceremonies at which Surgeon General Leroy E. Burney presided. The Honorable Arthur S. Flemming, Secretary of the Department of Health, Education, and Welfare, and Dr. James A. Shannon, Director of NIH, took part in the program.The principal address to commemorate the occasion, which marked the fifth anniversary of the creation of the Division as a separate unit of NIH, was given by the Director of the Division, Dr. Roderick Murray.

The structure, built at a cost of $3½ million, was specially designed to house the scientific and administrative operations of the Division, which is responsible for the safety, purity, and potency of all biological products within the jurisdiction of the Public Health Service.

The Professional Market Research, a new organization, has been created to conduct studies for pharmaceutical manufacturers, medical journals, and pharmaceutical direct mail houses. Through this service the medical profession will be given an opportunity to express their opinions, their likes and dislikes, to the industry in a way which is organized and statistically controlled.

Most of the research will be conducted by mail to a select list of physicians. Some problems will require personal interviews. The organization is listed with the Better Business Bureau. Its offices are located at 117 South Seventeenth Street, Philadelphia, Pa. The Research Director is Mark K. Dresden, Jr.

The Medical Section of the National Tuberculosis Association has changed its name from the American Trudeau Society to the **American Thoracic Society** in order to reflect more accurately the broad interest of the membership in all diseases of the chest and respiratory tract, as well as tuberculosis.

Organized in 1905 as the American Sanatorium Association, the ATS was reorganized in 1939 as the medical section of the NTA and named in honor of Dr. Trudeau, who established the famous sanatorium that bore his name at Saranac Lake, N. Y. The Society has a membership of more than 5,000 physicians and other scientists in North America and throughout the world. Its official scientific journal is the *American Review of Respiratory Diseases.*

Miss Mattie Gibson, Superintendent of Children's Hospital for more than 25 years, died, June 16, 1960, at Doctors Hospital. She lived at 104 Sager Avenue, Falls Church, Va.

Miss Gibson was born on an Iowa farm near Council Bluffs. Over the objections of her family she became a student nurse at the Women's Christian Association Hospital in her home town, and upon graduation became one of the first graduate nurses in the state.

At the beginning of World War I she volunteered her services, and was one of the few women who spent a substantial amount of time on the front. Her unit, which was organized as Mobile Hospital No. 1 in France, served the wounded who could not be moved to base hospitals behind the lines. She came home with the *Croix de Guerre.*

Miss Gibson arrived in Washington in 1920 to take over the superintendency of Children's Hospital. During her years of service there she saw the Hospital grow from an institution which treated 1,570 patients, during her first year, to one which treated 7,000 inpatients and 46,000 outpatients in 1946, when she retired and was named Superintendent Emeritus. Today these figures have been almost doubled.

In 1940, when she was honored for her 20 years as Superintendent, Mr. Thomas B. Sweeney, Vice President of the Board of Directors, said of her: "It is safe to say that no individual in the long history of the Children's Hospital has exercised a more potent influence than Miss Gibson."

There were no immediate survivors.

PERSONALS

Dr. Bruce I. Shnider, Assistant Professor of Medicine at Georgetown University School of Medicine, was appointed Assistant Dean of the School, effective July 1, 1960.

Dr. Shnider graduated from Georgetown University School of Medicine in 1948 and has held teaching assignments and staff appointments at Georgetown since 1952. He was named Assistant Professor of Medicine in September, 1956. He is consultant in internal medicine to the Clinical Center at the National Institutes of Health.

A grant totaling $216,852.00 from the National Cancer Institute for "the clinical evaluation of cancer chemotherapeutic agents" is under the direction of Dr. Shnider. Funds in the amount of $43,135.00, recently received from PHS, was the second year allotment of the 5-year grant. This study is part of the National Coöperative Program in Cancer Chemotherapy. The activities of the research program in the Georgetown Medical Division of D. C. General Hospital are coördinated with the Eastern Coöperative Group for Solid Tumor Chemotherapy, of which Dr. Shnider is Vice Chairman.

Dr. Leslie H. French has accepted a post as Director of Medical Education and Research at Grant Hospital in Columbus, Ohio. When he relinquished his offices at 1726 Eye Street, N.W., in July, he closed a Washington practice of some 30 years.

Dr. French was born in England and educated in

England and the United States. He graduated from George Washington University School of Medicine in 1924, and received his intern and resident training at the University Hospital. A specialist in internal medicine, he was particularly interested in cardiology and the metabolic diseases. He was Director of Medical Education at the Prince Georges General Hospital.

From 1946 to 1956 he was Chief of the Department of Medicine and Director of the Outpatient Clinic at Prince Georges General Hospital. He was formerly on the staff of Georgetown University School of Medicine as Clinical Assistant Professor of Medicine.

Dr. French's hobby is photography. A number of his photographs of speakers at various medical meetings have been reproduced in the MEDICAL ANNALS.

Dr. Kenneth R. Nelson, Chief of the Division of Hospitals, Public Health Service, has been appointed Chief Medical Officer of the United States Coast Guard, effective July 1. He succeeds Dr. Richard B. Holt, who is retiring.

Dr. Nelson is a graduate of the University of Minnesota and the University of Minnesota Medical School. Commissioned in the Regular Corps of the Public Health Service, in 1929, he has spent approximately half of his medical career in hospital administration. He came to Washington in November, 1956 as Associate Chief of the Bureau of Medical Services.

Dr. Preston A. McLendon has been reappointed to the District School Board by a committee of District Judges for a 3-year term.

Dr. George E. Schreiner has been elected a member of the Council of the American Society for Artificial Organs and reëlected Editor of *Transactions* of the Society.

He was elected Chairman of the Committee of Organization for the 1961 meeting of the Southern Salt, Water and Kidney Club, to be held at Georgetown University Hospital in the spring of 1961.

Dr. Schreiner was also reëlected Secretary-Treasurer, a member of the Executive Committee, and Chairman of the Publication Committee of the American Federation for Clinical Research.

Dr. Richard F. Manegold, Director of Medical Education, Sibley Memorial Hospital, is one of 5 specialists in the field of health who have been named to the professional committee which will select the District's 5 recipients of the National Foundation's 1960 health scholarships. The scholarships, of $2,000 each, cover a 4-year period in each of the health fields represented on the judging committee. They are medicine, medical social work, nursing, occupational therapy, and physical therapy.

Dr. G. Lennard Gold was elected to active membership in the American Association for Cancer Research on April 7, 1960, during the annual meeting of the Association in Chicago. Dr. Gold is Clinical Instructor in Medicine at Georgetown University School of Medicine.

Dr. Arcangelo D'Amore has been appointed to the Mental Health Commission of the District of Columbia by the District Court judges. Dr. D'Amore, a psychiatrist, has been in private practice in the District of Columbia since 1948.

Dr. Seymour J. Rosenberg was recently elected First Vice President of Help for Retarded Children, Inc.

MEMBERSHIP

The following applicants for membership were duly elected to membership by the Executive Board, June 27, 1960, in accord with Chapter II, Article VIII, of the Constitution and By-laws of the Society.

Active Members

Francis W. Blackwell, 561 25th Place, N.E.
Peter W. Conrad, Georgetown University Hospital
Thomas M. Foley, Jr., 1835 Eye Street, N.W.
John C. Kenealy, 1150 Connecticut Avenue, N.W.
John F. Maher, Georgetown University Hospital
Louis E. Perraut, 228 Quackenbos Street, N.W.
William W. Saunders, George Washington University Hospital
Paul D. Sullivan, Jr., Georgetown University Hospital
Benedict Vicas, 708 Massachusetts Avenue, N.E.
William P. Waters, 226 46th Place, N.E.

Affiliate Member

James W. Love, 312 South Washington Street, Alexandria, Va.

Associate Members

Joseph C. Evers, 7043 Old Dominion Drive, McLean, Va.
Assad S. Khoury, Washington Clinic
Willie Ricketts, 1423 52nd Avenue, N.E.
Claire F. Ryder, Division of Health Service, PHS, Department of Health, Education, and Welfare
William N. Sterling, 4890 Battery Lane, Bethesda, Md.

Resident-Intern Members

Jesse E. Pyeatte, Georgetown University Hospital
Franz-Joseph M. Weber, Providence Hospital

The following applicants for membership will be voted on at the meeting of the Executive Board in August 1960.

For Active Membership

Chalom A. Albert, American University of Beirut (Lebanon)—1953
Elizabeth A. Crisp, Louisiana State University—1950
Horace T. Gardner, Yale University—1941
Gerold K. V. Klein, University of Berlin (Germany)—1943
Thayer M. Mackenzie, Johns Hopkins University—1947
Mauris M. Platkin, University of Geneva (Switzerland)—1954
William H. Whitmore, Jr., Medical College of Virginia—1948

For Affiliate Membership

Robert Kramer, University of Geneva (Switzerland)—1956

For Associate Membership

Orhan H. Aydinel, Istanbul University (Turkey)—1949
John Cosma, Medical Faculty of the University of Cluj (Romania)—1938
Oshin Der-Stepanian, George Washington University—1956
Liselotte Hochholzer, University of Munich (Germany)—1953
Owen C. Shull, Medical College of Virginia—1958

CORRESPONDENCE

WASHINGTON, D. C., June 28, 1960

TO THE EDITOR:

I have just read the editorial, "Corneal Opacities—A Complication of Chloroquine Therapy," which appears in Volume XXIX, Number 6, June 1960. Dr. Osbourn has written a timely and important word of caution. I would, however, like to emphasize one point which the use of the term "antimalarials" in the editorial may obscure. The corneal opacities in every case in which details are available, and perhaps in all cases, followed relatively intensive treatment for conditions other than malaria. These patients were given varying daily doses up to 1,000 mg. or more for weeks, months or years.

The usual once weekly dose of 300 mg. of Chloroquine base for the prophylaxis of malaria, even when given for 2 years, has not been shown to cause corneal opacities or other ophthalmologic complications. Nor is the treatment of acute malaria known to result in these complications. These facts are important to remember lest the traveler be advised against this preparation and thus be exposed to the far greater probability of malaria.

Very truly yours,
MAJOR JEROME H. GREENBERG, M.C., U.S.A.
Communicable Disease Branch,
Preventive Medicine Division,
Office of the Surgeon General

WASHINGTON, D. C., June 27, 1960

TO THE EDITOR:

Q-T Washington, Incorporated, a mutual aid group for ileostomy patients, has expanded its membership to include colostomy patients as well. The organization offers its services to the medical profession in the physical and psychological rehabilitation of those who have or who are to undergo surgery for ileostomy or colostomy.

These services include visits to patients in hospitals or ıa home, conferences with the medical staff and nurses ta the hospitals, and lectures in nursing schools. A set of slides showing the proper way to put on an appliance is available as well as an appliance board with samples of the leading appliances and accessories.

The organization holds regular monthly meetings at which members can discuss their personal problems and benefit from the experiences of others. In addition, a monthly bulletin is published containing items of interest, such as new appliances and accessories, helpful hints, etc.

Our activities, however, are restricted by the amount of recognition we get from the medical profession. We do not visit a patient, except with the express permission of a physician. Nor can we hold conferences at hospitals without the arrangement being made for us by the medical staff.

For further information about the organization please contact Mr. Julius Langsner, 10924 New Hampshire Avenue, Silver Spring, Maryland, telephone Hemlock 4-3292.

Very truly yours,
JULIUS LANGSNER
President, Q-T Washington, Inc.

TO THE EDITOR:

PROFESSIONAL COURTESY

Professional courtesy, which prescribes that a doctor is obligated to extend his services free to another doctor and his dependents, regardless of the other doctor's financial condition, should be abolished. Those services which are freely given to needy individuals, regardless of occupation, should, of course, apply to needy doctors, but all others would, I am sure, prefer to pay regular fees. None of us enjoys being obligated, and we postpone consulting a colleague as long as possible, often to the detriment of the invalid who could be rapidly relieved during the incipiency of the disease. Postponement entails more calls and more imposition on the time of the consultant.

After the recovery of the patient the consultant receives a suitcase or a book or some other acknowledgment of gratitude, altogether disproportionate to the value of the time and effort involved, and often duplicating articles which are already resting in upstairs closets. The recipient of the professional courtesy is expected to refer to the consultant suitable cases in his practice until the value of his ministrations has been equalized, so that actually the debt is transferred to his patients.

In case of protracted illness, especially if there is a clash of personalities between the patient and the consultant, it is next to impossible to remove this impediment to quick recovery without bruised feelings, and it would be most embarrassing for the family to suggest that another doctor be called in to consult with the attending physician in serious, puzzling cases.

During these busy times the doctor who has been called to treat a colleague's family finds it a hardship on his time and his pocketbook to respond to such calls. Both parties would be relieved and pleased if this phase of professional courtesy were to be abolished. The attention of the American Medical Association should be directed toward this aspect of medical practice. I am sure that many doctors' wives would be in favor of enjoying the same privilege which the general public possesses—that of free choice of physician on a business basis, and the advantage of changing to another if circumstances should indicate that another physician be employed.

JAMES A. GANNON, M.D.

AGATHA J. SOBEL, B.A., M.D.
(1920–1960)

Dr. Agatha J. Sobel, Washington psychiatrist and a member of the staff of the D. C. Bureau of Mental Health, died suddenly, June 14, 1960. Her home and offices were located at 3315 Wisconsin Avenue, N.W.

Dr. Sobel was born in New York City, September 26, 1920, to the late Dr. Samuel P. Sobel and Dr. Frances S. Sobel, who survives her. She was educated in the public schools of New York City and received a Bachelor of Arts degree from Hunter College in 1947. Her medical education was obtained at the University of Chicago from which she graduated in 1954.

Following graduation Dr. Sobel came to Washington to intern at St. Elizabeths Hospital. She also served a 3-year residency at St. Elizabeths, from 1955 to 1958. At the end of her training she was appointed medical officer in psychiatry, which post she held for a year.

Dr. Sobel was appointed staff psychiatrist in the Legal Psychiatric Services Division of the Department of Public Health in June 1959.

She had been an Active member of the Medical Society of the District of Columbia since 1958. She was a member of the American Psychiatric Association, the Washington Psychiatric Society, and the St. Elizabeths Medical Society.

She was married to the late Raymond L. Pope. Surviving her, in addition to her mother, are two sisters, Mrs. Helen Kistin and Miss Edna H. Sobel, both of New York City.

WILLIAM ALBERT RYON, M.D.
(1904–1960)

Dr. William A. Ryon, general practitioner in Washington for more than 30 years, died, June 24, 1960, at the Washington Sanitarium. He lived at 2250 Hannon Street, Hyattsville, Maryland.

Dr. Ryon was a native Washingtonian, born, November 7, 1904, to the late Albert E. and Adeline M. Ryon. He studied premedicine at the University of Maryland and graduated from George Washington University School of Medicine in 1928. His internship and residency training were completed at Sibley Memorial Hospital. He was on the visiting staffs of Sibley and Providence Hospitals.

During World War II Dr. Ryon served in the Army Medical Corps in both the European and Pacific theaters. As Lieutenant Colonel, he was

Commanding Officer of the 47th General Hospital in the Pacific Theater.

Dr. Ryon was an Active member of the Medical Society of the District of Columbia from 1934 to 1957. He was also a member of the American Medical Association, the American Society of Tropical Medicine, and the George Washington University Medical Society. He was a member of the Masonic Order.

Surviving him are his wife, Mrs. Emmabelle Offutt Ryon; a daughter, Mrs. Louis Gleason, of Woodstock, N. Y., and two sisters, Mrs. Fred Cornwell, of Silver Spring, Md., and Mrs. Frank E. Shipman, of Washington.

Evaluation of Chloraseptic—Novick and Sodhi

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Multiple Genesis and Therapy of Psychiatric Disorders—Fazekas

(*Continued from page 440*)

cortical areas and intercortical association fibers as terminal receivers, organizers, and directors of the functional activity of the brain, nor, on the other hand, fail to place due emphasis upon the lower cerebral centers.

There is a tendency for the several psychiatric disciplines to diverge widely in the aspects of practical therapy. There are those who eschew drug therapy in any form; of the large number of others who are now employing such agents, many fail to recognize the value of concurrent psychotherapy and attention to environmental factors, ignoring their enormous importance in psychiatric disorders. Fortunately, there still remain some who, while recognizing the organic substrate of mental disease and the modifying action of psychopharmacologic drugs, also give time and attention to psychotherapy.

Since the genesis of psychiatric disease apparently involves multiple factors, modification of only 1 component cannot hope to achieve an optimally functioning individual. One must realize that the *raison d'être* of psychopharmacologic agents, singly or in combination, is to facilitate management of disturbed patients and improve their accessibility to psychotherapeutic measures, and that, although the wide range of normalcy may permit the psychotherapeutic drugs alone to induce a behavioral state which may be socially acceptable, it still may not be optimal for the individual. One cannot ignore the various psychologic forces constantly influencing the higher coördinating centers, and consideration must be given to these factors in any long-term therapeutic regimen.

Squamous Metaplasia of Urinary Tract—Tehan and Kelly

(*Continued from page 443*)

COMMENT

In this case the squamous metaplasia involved only a portion of the urinary tract, namely, the right renal pelvis and ureter. The metaplastic changes progressed on to leukoplakia. The desquamated keratin liberated from the leukoplakic mucosa of the renal pelvis became impacted in the lower ureter and led to the clinical impression of a primary ureteral tumor. Since leukoplakic changes of the urinary tract have the same premalignant potential as leukoplakia elsewhere in the body, the involved portion of the urinary tract was removed.

ACKNOWLEDGMENT: The authors are indebted to Mr. V. Landi and Mr. G. Brown for the preparation of the X-ray reproductions and photomicrographs.

Addison's Disease and Rh-Iso-immunization in Pregnancy—Paquin

(*Continued from page 445*)

ACKNOWLEDGMENT: The author is indebted to Dr. Thomas Curtin, Chairman of the Department of Internal Medicine, Providence Hospital, Washington, D.C., for assistance in the medical management of this patient.

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Blue Shield Study Commission

(*Continued from page 460*)

Shield Plan; Dr. A. A. Morrison, of Ventura, Calif.; Dr. Donald N. Sweeny, of Detroit, Mich.; Mr. Lewis G. Hersey, Executive Director of the Medical Service Bureau (Blue Shield Plan) of the Utah State Medical Association; and Mr. Walter R. McBee, Executive Director of the Texas Blue Shield-Blue Cross Plans.

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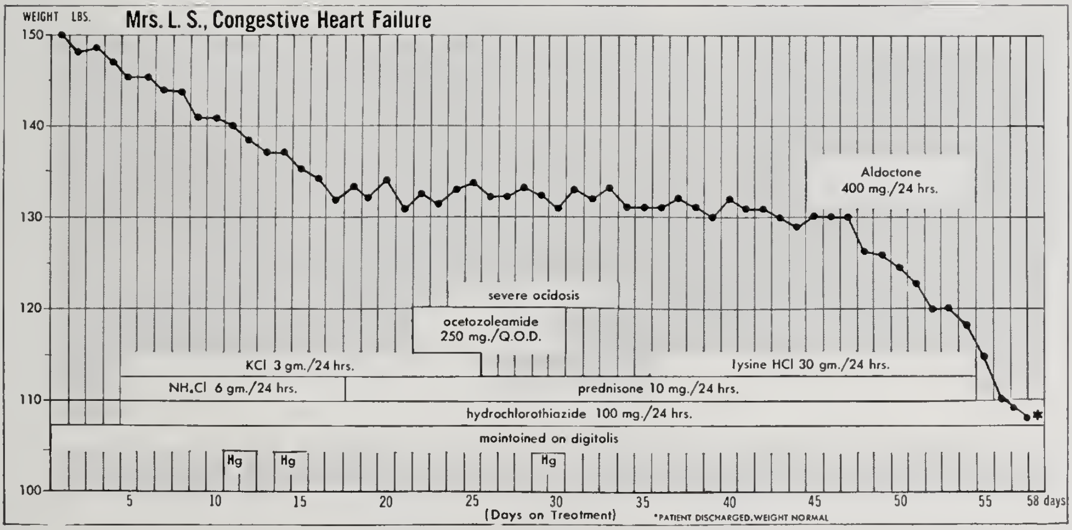

Book Reviews

Clinical Obstetrics and Gynecology. A Quarterly Book Series. Vol. 3, No. 1. Obstetric Emergencies, edited by Martin L. Stone, M.D.; Pediatric Gynecology, edited by John W. Huffman, M.D. Price, $18.00 subscription for 4 consecutive numbers. Pp. 264. New York: Hoeber-Harper, March 1960.

The first chapters deal with 10 separate types of obstetric emergencies by as many authors, each giving the summation of his experience in widely recognized obstetric centers. The symposium discusses the importance of selective anesthesia in obstetric emergencies, especially if the parturient has just eaten; the importance of good obstetric judgment to limit unsuccessful attempts of vaginal delivery by forceps extraction; the better salvage rates with liberal use of cesarean section in transverse position; the importance of early diagnosis, blood replacement, and laparotomy in cases of rupture of the uterus; the treatment of eclampsia and its sequelae; the management of severe abruptio placentae; the management of postpartum hemorrhage; the handling of surgical emergencies in pregnancy as well as in labor; the importance of electrolyte studies and the use of dialysis in acute renal failure; and lastly, the rare but serious matter of cardiac arrest in obstetrics.

The subject matter is not covered completely, nor are any case histories given. Many issues in the symposium are controversial, especially the management phase in the chapters on Toxemia and Eclampsia. However, the purpose of the editor is accomplished, namely, that of an awareness of obstetric pathology, its prompt recognition, and intelligent management, which are essential if we are to further lower the ever-existing maternal mortality.

This symposium is worthwhile reading by the busy obstetrician, resident or the general practitioners who do obstetrics.

The second section has attempted to bring "Pediatric Gynecology" from a position of previous neglect to one of clarification and growing interest. Because of their relative infrequency and one's limited experience with them, the diagnosis and management of pediatric gynecologic conditions are often difficult. The gynecologist is too often expected to reach a definitive solution to a perplexing hormonal problem in children. This symposium is recommended to all practicing gynecologists to help augment their working knowledge of this subject.

The female genitalia in the premenarchal age are the site so often of physiologic, anatomic pathology, and involved in endocrine disorders, neoplasms, congenital adrenocortical hyperplasia, as well as the rudimentary gonad syndrome. The chapters on genital anomalies in children, vulvar disorders, and vulvovaginitis in childhood are discussed in great detail and should prove very practical to the gynecologist treating children. Of further interest are the chapters on dysmenorrhea, dysfunctional uterine bleeding, and the delayed menarche. However, the discussion on isosexual precocity, intersexed female child, and rudimentary gonad syndrome needs further clarification and research to eliminate confusion in terminology as well as acceptance in the field of management.

Robert J. Sherman, M.D.

Anatomy. A Regional Study of Human Structure. Ernest Gardner, M.D., Donald J. Gray, Ph.D., and Ronan O'Rahilly, M.Sc., M.D. Illustrated by Caspar Henselmann. Price, $15.00. Pp. 999. Philadelphia: Saunders, 1960.

In this book of 1,000 pages, the authors endeavor to provide a text of anatomy that will serve the needs of the undergraduate medical student and advanced graduate worker as well.

Emphasis is placed on the regional approach throughout 72 chapters, with 10 introductory chapters designed to offer general material on each system as an entity.

By confining all eponyms to a glossary at the end of the book, the authors have made a significant step. In spite of the many new innovations, the book does not adequately fill the void between simple dissection manuals and standard detailed anatomic texts. Too many of the illustrations are simple schematic diagrams which serve well as reference figures for purposes of summary but lack the detail necessary to contribute to full understanding of the textual material involved.

The graduate student should find the footnote references up-to-date and excellent. A distracting effect is created though by allowing these bibliographic notes to intrude prominently on each and every page, often occupying as much as one fourth of the column allotted to textual material.

The anatomy is presented in a highly summarized form, which should prove valuable to the advanced student, but it appears too condensed for the beginning medical student's grasp. Far too much attention is devoted to clinical material introduced as "live anatomy." The compactly arranged pages of surface anatomy located at the end of each chapter, which lack accompanying illustrations, seem extraneous. The pro-

(*Continued on page 40*)

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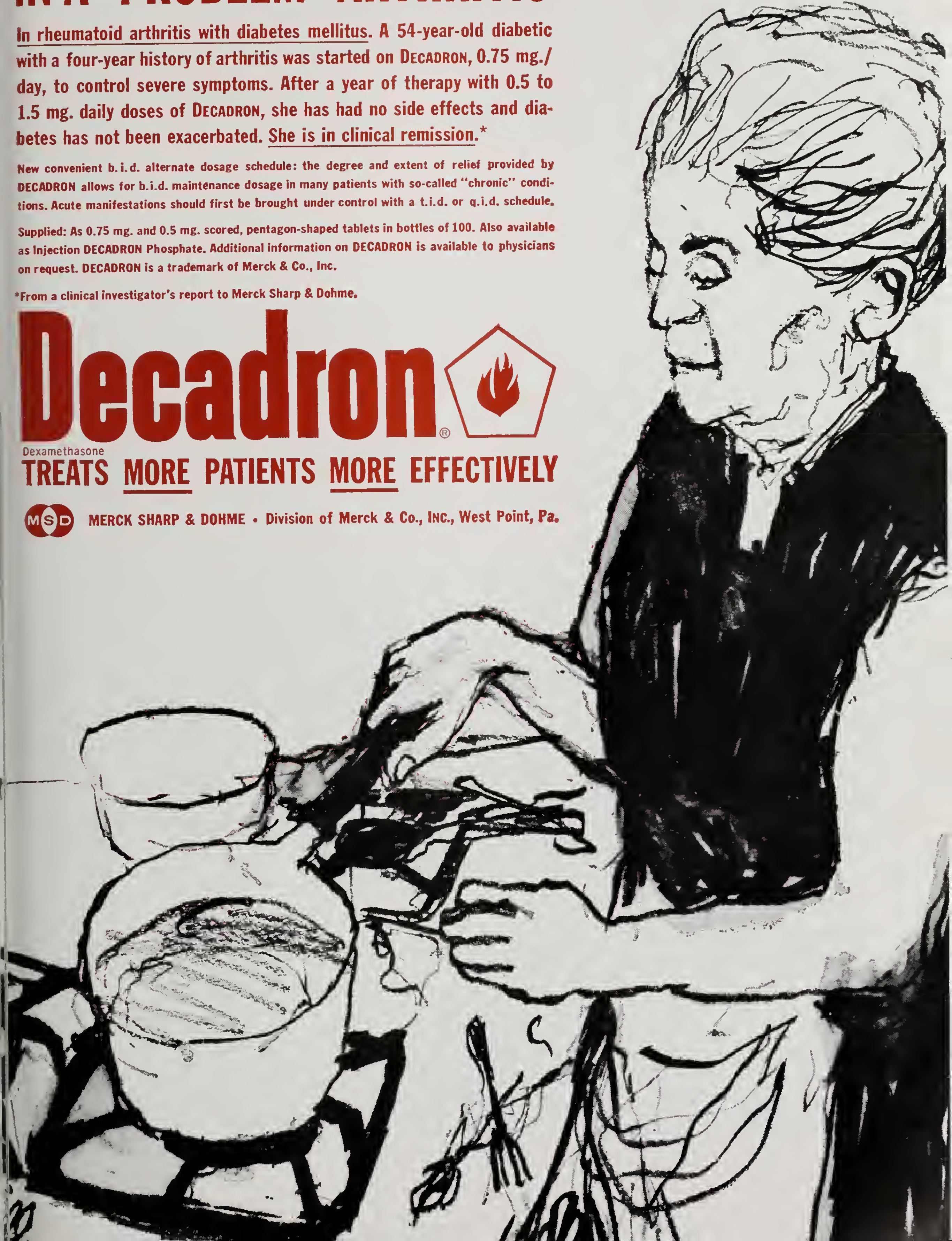

Book Reviews

(*Continued from page 34*)

fuse use of roentgenographic reproductions also detracts from the book as an anatomic text.

In the opinion of this reviewer, the book will serve excellently for a resident who is preparing for Board examinations in basic science or for an intern who is beginning a residency and desires a good basic review of anatomy. The thoughtfully selected reference lists will hold special appeal for the advanced graduate worker, but the burden of the undergraduate medical student will not be appreciably eased by the publication of this anatomic text in spite of the authors' valiant effort.

William J. Mitchell, M.D.

Drugs of Choice 1960–1961. Walter Modell, M.D., Editor. Price, $13.50. Pp. 958. St. Louis: Mosby, 1960.

This is the second edition of an excellent practical guide in choosing from the thousands of new drugs, combinations of drugs, duplications of drugs, and trade names which have managed to make the clinician from time to time throw up his hands in despair and return to the use of nux vomica — or, worse, let the detail man direct the management of his patients.

An impressive array of authorities have written chapters covering the treatment of frequently encountered problems arising in practice. Usually the authors leave some of the choice up to the practitioner's judgment after clear statements concerning the more desirable drugs.

The format is practical. The table of contents lists 42 well-defined and carefully worded subject titles. This is followed by the text. Between the text and general index is a Drug Index of Trade Names and some of their synonyms.

Of note are the opening chapter by the editor, Dr. Modell, on the Principles of the Choice of Drugs, and a useful discussion on The Choice of a Diagnostic Agent by Dr. David Barr.

Among the new subjects in this second edition is a particularly lucid discussion of Sedatives and Tranquilizers in General Medical Practice.

Certainly the compending in one volume of the less biased opinions of experts and the gratifying omission of controversy make this a useful addition to this reviewer's library.

Charles S. Ireland, M.D.

I Prescribe Laughter. Thomas Richard Rees, M.D. Price, $2.75. Pp. 111. New York: Vantage, 1960.

Humorous books have, in this reviewer's experience, seldom lived up to expectations. More often than not

(*Continued on page 47*)

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Book Reviews

(*Continued from page 40*)

they are melancholy rather than amusing. This is especially true where the books consist largely of anecdotes, pithy sayings, jingles, and what-not.

Dr. Rees' book is superior because of his obviously keen sense of humor. His selective compilation is aptly entitled, "I Prescribe Laughter," and a most effective prescription it is. The reader who is not genuinely amused by several of the "stories" in this book is in a bad way.

T. W.

Ciba Foundation Study Group No. 3. Cancer of the Cervix. Diagnosis of Early Forms. In honour of Prof. Dr. C. Kaujmann. G. E. W. Wolstenholme, O.B.E., M.A., M.B., M.R.C.P., and Maeve O'Connor, B.A., Editors for the Ciba Foundation. Price, $2.50. Pp. 114, with 27 illustrations. Boston: Little, 1959.

This worthy little volume is the product of a distinguished international study group composed of pathologists, radiologists, and gynecologists who gathered to discuss the diagnosis of early forms of cervical carcinoma. This is one of the thorniest problems the pathologist and gynecologic surgeon must face, and the group rightfully concerned itself largely with the practical aspect of pathologic diagnosis. However, there are also reports of basic research on chromosomal changes and enzyme studies in cervical cancer.

Launching the discussion is an authoritative attempt to define and classify carcinoma in situ. This pathologic study is based on a thorough analysis of a large number of cases. Its weaknesses are a tendency to split carcinoma in situ into unnecessary subdivisions and the apparent inclusion of some cases of early invasive carcinoma.

Other important contributions include newly proposed modifications in the staging of cervical carcinoma; an extremely detailed study of morphologic changes in the cervix with age and their relationship to cervical cancer; and a discussion of the problems in detection of carcinoma in situ which indicates that almost all premalignant lesions and preinvasive carcinomas of the cervix can be detected by cytologic smears. At the close there is a brief treatment of the vexing questions of atypical hyperplasia and carcinoma in situ of the endometrium.

While slight in size this book offers a great deal of sustenance to the pathologist and something of interest to the gynecologist. Unfortunately, its photomicrographic reproductions are less than good in quality, but this is more than compensated for by the textual material. While the difficult problems of early cervical cancer are not solved, long strides toward their ultimate solution have been taken by this study group.

Frank N. Miller, M.D.

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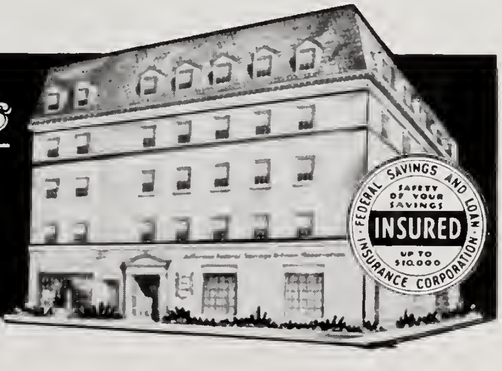
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MEDICAL ANNALS
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VOLUME XXIX *September*, 1960 NUMBER 9

Etiology of Carcinoma of the Lung

GEORGE WILLIAM WARE, M.D., F.A.C.S.

Instructor in Thoracic Surgery, Georgetown University School of Medicine; Chief of Thoracic Surgery, Providence and Sibley Memorial Hospitals, Washington

I HAVE PREVIOUSLY PUBLISHED a paper on Tobaccosis which examined the effects of cigarettes on the human body.[1] The present prospect is to examine in general the etiology of carcinoma of the lung. Particular attention will be paid to the role of cigarettes, since it is my contention that cigarettes are one of the main causes, if not the main cause, of carcinoma of the lung.

INCIDENCE OF CARCINOMA OF THE LUNG[2-12]

According to Ochsner,[8] the mortality rate of carcinoma of the lung in women in 1933 was 2.3 per hundred thousand. In 1948 the rate was 4.7 per hundred thousand. The mortality of carcinoma of the lung in men was 4.6 per hundred thousand in 1933 and this increased in 1948 to 17.8. It has been stated by some that carcinoma of the lung has not really increased in incidence in the past century. They maintain that a relative increase is due to better diagnosis and increased age of the population.

All will agree that there is some relative increase due to better diagnosis. Today more people enter the hospitals for diagnostic study. Great advances have been made in laboratory diagnoses. Bronchoscopy and thoracotomy are common procedures in the medical world of today. However, these means cannot explain completely the phenomenal increase. The most marked increase in incidence is in men. They are less prone to seek medical advice and certainly are not better examined than women. The increase has also been as common in country areas as in cities. If the increase were due solely to better diagnosis, we would have to assume that some 50 years ago approximately 90 per cent of fatal cases were incorrectly diagnosed. Graham[6] has pointed out that such an assumption would mean that pathologists like Virchow, Cohnheim, and Rokitansky were frequently in error as regards the pathologic diagnosis of a cancer of the lung. Weller[13] has stated that pathologic laboratories have existed for years and that the autopsy material and microscopic slides are available for present examination. Review of this material does not show any gross error.

The increase in the incidence of carcinoma of the lung has not been due merely to the aging of the population. The statistics can be adjusted for this matter, and it is seen that the increase in the cancer is all out of proportion to aging or increase in population.

IS LUNG CANCER GREATER IN URBAN AREAS?

It is agreed by most that lung cancer has a higher incidence in urban areas.[4, 14-24] Doll[5] states: "According to the Registrar General, the death rate for lung cancer in 1950 was twice as high among male inhabitants of greater London as among men living in the rural areas." This author also noted that "it appears that as the place of residence becomes more highly urbanized, the proportion of non-smokers and of pure pipe smokers decreases and the proportion of pure cigarette smokers increases." Hammond[25] and Haenszel[26] also found that city dwellers were heavier smokers than country folk. Atmospheric pollution is a factor which will be considered later in this paper.

OCCUPATIONAL CAUSES OF CARCINOMA OF THE LUNG

Chromates.[2, 13, 27-34] Machle et al[33] in 1948 were the first to report in the English literature on the high incidence of lung carcinoma in chromate workers. They checked a number of plants in the United States and recorded 156 deaths for 11,019 man-years of employment. Forty-six of these were cancers, and 32 were confined to the lung. This represents about 25 times the expected incidence of carcinoma of the lung. It was their belief that monochromates were responsible for the carcinoma, not chromic acid or chromium sulfate. Other authors, such as Imprescia,[29] Gregorius,[28] and Brinton[35] have reported similar findings, and in some instances an even higher rate of carcinoma of the lung.

Asbestosis.[2, 3, 13, 36, 37] Reports on association between this entity and carcinoma of the lung began to appear about 1935. The annual report of the Chief Inspector for Factories in England in 1947 publicized this problem. Over a 23-year period (1924–1946) there were 235 deaths due to asbestosis or associated with asbestosis. Carcinoma of the lung was found in 31 cases, or 13.2 per cent. There were 128 male deaths, and 22 were associated with carcinoma of the lung. There were 107 female deaths, and 9 were associated with carcinoma of the lung. This is a high death rate as compared to the general population and an extraordinarily high one for women.

Lynch[37] in this country has reported on 49 cases showing asbestosis at post; 4, or 8.2 per cent, had carcinoma of the lung. The expected incidence is about 1 per cent on a hospital service. This individual noted that his incidence of 8.2 is the lowest of any significant series of asbestosis. In the discussion following this paper, it is stated that carcinoma of the lung is a compensable disease when it occurs in association with asbestosis.

Other occupational causes.[2, 3, 5, 15, 20, 21, 38-46] Surveys have shown that carcinoma of the lung is high in workers in certain other industries. Wynder[47] checked the occupation of patients with proved carcinoma of the lung and found that the incidence of painters was high, namely, 6 per cent. The study revealed an increased incidence in foundry and other metal workers and also in those with a heavy exposure to gasoline fumes, such as chauffeurs and truck drivers.

Lorenz[45] has discussed in detail the problem of carcinoma of the lung in the Schneeberg miners. Carcinoma of the lung in these workers has been recorded since 1879 and is the reason for as high as 60 per cent of the miners' deaths. Although most believe that radon inhalation is the cause, the exact agent has not been discovered. In considering the etiology of carcinoma of the lung, it is interesting to remember this group. All agree that the miners die mainly from carcinoma of the lung, yet many experiments involving the environment surrounding the miners have been made and no exact cause has been found.

Levin[32] found that individuals exposed to excessive heat, such as foundry workers, and workers in free silica, sand or iron dust, such as grinders and those engaged in metal construction, have a higher incidence of carcinoma of the lung. This difference in incidence could not be explained by smoking habits. Kennaway[42, 43] analyzed 38,000 death certificates and selected 23,549 in which carcinoma of the lung was believed to be the cause of death. Of this group, some 5,100 were proved by autopsy. He found that carcinoma of the lung was uncommon in agricultural workers, coal miners, professional groups, and other workers. It was above average in those who were exposed to road dust and coal gas.

Ask-Upmark[38] has reported an increased incidence in individuals constantly exposed to printing ink. Hueper[41] has listed "specific worker groups with specific respiratory cancer hazards." These include individuals exposed to arsenic, chromium, nickel, iron, isopropyl oil, radioactive substances, coal tar fumes, and petroleum oil mist. Breslow[2, 3] has reported a high incidence in welders, steam fitters, asbestos workers, crane operators, and painters.

Several studies [48, 49] have been made of workers engaged in the production of cigarettes. No increased incidence of lung cancer could be noted.

ATMOSPHERIC POLLUTION[6, 15, 18, 19, 21-24, 39, 50-64]

Most investigators have found that carcinoma of the lung is more common in city dwellers, and this, of course, brings up the problem of air pollution. It should be realized that benzpyrene, a known carcinogen, can be normally isolated from the atmosphere, smoke from domestic fires, and the exhausts from gasoline or diesel engines. It has been noted, however, (Doll[65] and Hammond[15]) that city dwellers are heavier smokers than those who live in the country.

Mills[22] has reported that carcinoma of the lung is higher in individuals who drive an automobile more than 12,000 miles a year in city traffic. This increase was not noted in individuals who drove the same distance in rural areas. Stocks[23, 24] was able to correlate by an inverse ratio the amount of sunshine in an area and the rate of carcinoma of the lung. He found that the incidence of carcinoma of the lung was 2½ times as great in London as in a small rural area and pointed out that London folks do not smoke 2½ times as much as their country brethren. He also did analyses of atmospheric samples and found that the concentration of benzpyrene and benzperylene is 8 to 10 times more concentrated in urban areas such as Liverpool as compared with the rural area. Waller[62] reported somewhat similar findings in which the concentration of benzpyrene increased with the size of the town and in which the concentration is 3 to 4 times as great in winter as in summer.

Hueper[66] is a strong advocate of the rule of atmospheric pollution as a factor in carcinoma of the lung. He points out that the increase of carcinoma in workers in certain industries is certainly an argument for the role of atmospheric pollution. He reminds us that benzpyrene is found in domestic soot, carbon black (auto tires), and the exhausts of auto and diesel engines. The amount of this agent is more than can be isolated from cigarettes.

Clemo and Miller[50] used samples of city air and were able to produce skin papillomata and lung nodules in mice when fractions in benzene were painted on the backs of mice. In their opinion, "city smoke has a marked carcinogenic action." Kotin[55, 56] obtained similar results with atmospheric samples from the area of Los Angeles. Eastcott[14] has analyzed the death rates of England immigrants into New Zealand as compared with the native New Zealanders. Although the smoking rate was equal between the 2 groups, the immigrants had a much higher ratio of deaths due to lung carcinoma. The author believed that the earlier environment was the cause of this.

Other authors are not so impressed with the role of atmospheric pollution as a cause of carcinoma of the lung. Daff[51] had pointed out that there was little coal smoke in Switzerland or Istanbul and yet carcinoma of the lung is as common as in England. Graham[39] quotes Peacock who stated that analysis shows the atmosphere in Glasgow as relatively unchanged as compared to a hundred years ago. Wynder[64] presents an interesting group of Seventh-day Adventists who do not smoke yet live in "smoke-polluted areas of Southern California." He reports that lung cancer occurred "90 per cent less often than in the associated general population." This author stated that, if atmospheric pollution were a major cause of carcinoma of the lung, more women and male non-smokers would develop carcinoma.

PATHOLOGIC CONSIDERATIONS[8, 67-71]

It has been thought by some that if tobacco smoke is a carcinogenic agent, definite pathologic changes and precancerous lesions should be found in the tracheobronchial trees of smokers. Auerbach and associates[67, 68] presented a rather fascinating study of pathologic changes in the tracheobronchial tree of individuals coming to autopsy at his institution. They removed in toto the tracheobronchial tree of 150 males at the time of necropsy. They took multiple sections at different levels and actually reviewed 28,638 slides. In this series they thought they had sufficient study, clinical history, and sections of 117 patients. Of these, 34 patients had died of carcinoma of the lung. They reported that basal-cell hyperplasia was seen in 43 per cent of carcinoma cases and in 36 per cent of non-carcinoma cases who had smoked over 1 pack per day. This entity was seen in only 18 per cent of individuals who had not smoked regularly. Stratification of epithelial lining (flattening with loss of cilia) was seen in all but 2 cases of carcinoma of the lung. It was rarely seen in those who were not regular cigarette smokers. Third, squamous metaplasia was reported as seen in some degree in 31 of 34 cases of carcinoma of the lung. It was rarely seen in those who had never smoked. Carcinoma in situ (distal from the primary tumor) was definite or questionable in 28 of the carcinoma cases. It was seen in 1 per cent of individuals who had never smoked. These are truly important statistics.

Hamilton[69] performed somewhat similar studies. He examined the tracheobronchial tree in 30 cases of carcinoma of the lung, in 15 cases of heavy cigarette smokers, and in 20 control cases. Multiple sections were studied on these individuals. Basal-cell hyperplasia was seen in 82 per cent of carcinoma cases and in 40 per cent of non-smokers. Stratification was seen in 33 per cent of carcinoma patients and smokers and in 20 per cent of non-smokers. Squamous metaplasia was seen in 26 per cent of carcinoma cases and smokers and in 15 per cent of non-smokers. Ochsner[72] reported that the Department of Pathology at Tulane University has taken biopsies from the carina and major bronchi in all autopsies. They reported metaplasia and premalignant lesions in smokers.

Ryan[71] studied routine sections from surgical and autopsy cases at the Mayo Clinic. In routine necropsy specimens, squamous metaplasia could be seen in 8 per cent of males and in 6 per cent of females. In surgical specimens of noncancerous disease squamous metaplasia was reported in 80 per cent of the cases. They likewise reviewed 55 cases of males with squamous-cell carcinoma of the lung. They reported squamous metaplasia in 78 per cent of cases close to the primary tumor. They also reported 2 cases of carcinoma in situ which were separate and distinct from the primary tumor. An additional interesting observation was in men who had a pneumonectomy for carcinoma of the lung and later came to autopsy. The authors studied 41 cases of the "good lung." In 18 there was squamous metaplasia in this lung. In 5 cases an in situ carcinoma was found on microscopic study, even though the bronchus appeared normal on gross examination. "In fact, all degrees of progression from benign basilar hyperplasia to frank carcinoma such as has been described in the uterine cervix can be seen in our sections from these opposite or 'good lungs.' " It is unfortunate that the authors were unable to correlate this material with smoking histories.

Experimental Production of Cancer

Numerous reports[73, 74] have appeared of the ability or inability to experimentally produce carcinoma, utilizing various condensates or distillates of tobacco, atmospheric air, etc. To properly understand these experiments one must realize that spontaneous lung tumors may occur in certain strains of mice (strain A) and that the lung tumors described as produced by various methods are not similar to bronchogenic carcinoma in man as we understand it. Rather these tumors are alveolar in origin and an adenocarcinoma by microscopic studies. Squamous-cell carcinoma of the lung has not been produced by inhalation of tobacco or its products, atmospheric air, or exhaust fumes.[42, 43, 75-81]

PAINTING EXPERIMENTS

Tobacco products. Graham[82, 83] reported the results of painting the inner portion of a rabbit's ears with cigarette smoke condensate. By the eighth month one-half developed papillomata and at 23 months all had papillomata which were usually multiple. Five of the 41 developed carcinoma. An additional number developed carcinoma of the skin long after the painting was stopped. He points out that most authors who have experienced difficulty in reproducing the results have used tobacco distillates, not condensates of cigarette smoke. Wynder[84] painted the backs of mice with an acetone tobacco tar solution 3 times a week. Tumors were noted by the forty-second week of painting. Forty-four per cent of the mice so treated developed an epidermoid carcinoma of the skin. It is interesting to note that removing the nicotine did not change the carcinogenic properties of the cigarette tar. Rand[85] reported the isolation of benzpyrene from tobacco tar and cigarette paper residue. He was able to produce carcinoma of the skin by painting the backs of mice.

Cooper[86, 87, 88] reported his studies of painting the backs of mice with various solutions of tobacco tar. The solution was applied every 3 days up to 23 months. Only 1 mouse developed a tumor, and this was an epithelioma of the skin. He stated that if coal tar was used in this concentration the incidence of tumors would be much higher, and he concludes, "Tobacco is relatively unimportant in the causation of cancer." Helwig[89] painted the skin of mice with various tobacco tar and tobacco distillates. He reported ulceration occurred but "no atypical growth." Roe and associates have attempted to duplicate Graham and Wynder's experiments. They did not use cigarette condensate. At the most recent report[90] they have seen no tumors at 22 weeks of treatment. There is no conflict with the American results at this time of experimentation.

Thus we see that, using condensates of tobacco smoke, investigators were able to produce tumors and, in some instances, carcinoma. It is agreed that the tumors were those of skin and in animals. Whether tobacco smoke condensate is strongly or weakly carcinogenic is not half as important as the fact that it is carcinogenic.

Painting with ink. Ask-Upmark[38] quotes the work of Steinbruck who painted the necks of mice with printers' ink. It is stated that in 5 instances carcinoma of the lung and skin developed.

Painting with atmospheric air. Clemo[50] has reported the production of skin papillomata and lung nodules in mice with air samples. Eight different strains or sub-strains were used. Kotin[55, 56] painted the backs of 76 mice with a benzene extract of atmospheric air. Thirty-one mice were alive 15 months later. The remainder died of toxicity or intercurrent infection. Thirteen developed tumors which were papillomata of the skin, and 9 of these developed into squamous-cell carcinoma. The benzene controls did not develop any tumors.

Painting with fumes from gasoline engines. Campbell[91, 92] and Clemo[50] reported little change in such experiments from control animals. Kotin, however, reported similar results as those obtained with painting with an extract of atmospheric air.

INJECTION EXPERIMENTS

Andervant[93] was able to produce lung adenocarcinoma and sarcoma of the skin in strain A mice subjected to injections of dibenzanthracene-ard solution. The author recognized that a particular strain may develop spontaneous tumors but states that many autopsies of this strain have never shown lung carcinoma. Blacklock[94] of England is conducting interesting experiments. He is injecting tobacco condensates into the lungs of rats. At the time of this writing definite results are not available.

Helwig[89] reported that injection of the skin in rabbits with various tobacco tars and tobacco distillates resulted in ulceration but "no atypical growth." Rand[85] in his experiments by injecting subcutaneously tobacco tars was able to produce carcinomas.

INHALATION EXPERIMENTS

Campbell[91, 92] stated that in his experiments with mice subjected to fumes of gasoline engines or cigarette smoke the number who developed lung tumors was not significantly different from the control series. Essenberg[95] used mice of a strain susceptible to lung tumors and placed them in a smoke chamber (cigarette). There was a higher mortality rate for those in the smoking chamber than for a control group. Ninety-one per cent of those alive at the end of 1 year in the smoking chamber had lung tumors. Fifty-nine per cent of the controls in the same time had lung tumors. Campbell reported that the tumors were either adenoma or adenocarcinoma. Lorenz[44] reported a series of strain A mice in smoking chambers for a period of 25 to 250 days. He calculated that each mouse had a deposit of 0.5 Gm. of tar in his respiratory passage; the incidence of lung tumors was not higher than in the controls. Leuchtenberger[96] studied mice placed in smoking chambers for 11 to 200 days. A mild to severe bronchitis was then seen. "Furthermore, more than one-half of the mice with bronchitis had foci of epithelial dysplasia, in many respects similar to what would be called carcinoma in situ in man." Passey[97, 98] has stated that with experiments over a 5-year period he has been unable to produce lung tumors in mice subjected to strong concentration of cigarette smoke.

Other experiments which should be mentioned include those of Greene,[99] who used tobacco tar in an attempt to produce carcinoma in transplants of embryonic mouse lung. He was unable to produce carcinoma, although he stated that this substance is very susceptible to carcinogens. Rockey[100] applied coal tar to the bronchi of animals by way of tracheotomy. They were able to detect changes in 3 to 6 weeks consisting of hyperplasia or squamous metaplasia. No incidences of carcinoma, however, were seen.

CIGARETTES CAUSE CANCER

Wynder and Graham[101] in this country published in 1950 a series of 684 cases of proved bronchogenic carcinoma obtained from various hospitals in the United States. They utilized an additional 780 patients as controls. There are 605 cases of bronchogenic carcinoma which were not adenocarcinoma, and of these 1.3 per cent were non-smokers and 13 per cent were light to moderate smokers. As regards the 780 controls, 14.6 per cent of these did not smoke and 30 per cent were light to moderate smokers. There were 39 cases of adenocarcinoma in women. The vast majority of these patients did not smoke. Of the male patients with carcinoma of the lung, over 91 per cent smoked cigarettes, 4 per cent smoked pipes, and 3.5 per cent smoked cigars.

A similar study was published by Doll and associates[102] the same year. They undertook a study of 20 London hospitals and interviewed over 1,700 carcinoma patients (all types) and 740 controls. The vast majority of patients with carcinoma of the lung were smokers and usually cigarette smokers. For example, only 2 of 649 men and 19 of 60 women with carcinoma of the lung were non-smokers. Of smokers who had carcinoma of the lung, only 5.7 per cent were straight pipe smokers. They found that only 0.3 per cent of non-smokers developed carcinoma of the lung, whereas there were 4.2 per cent of non-smokers in the control group. They concluded, "Whichever measure of smoking is taken, the same result is obtained, namely, a significant and clear relation between smoking and carcinoma of the lung."

Since the original 2 studies mentioned, over 18 large surveys on a world-wide basis have substantiated these results. The exact percentage of smokers or non-smokers with carcinoma of the lung has varied; however, the conclusion reached by each investigator has been similar to that of Doll, quoted above. A few of the studies will be quoted.

Breslow,[2] in a study from California, supported the findings of Doll and Wynder. He concluded that the patient with carcinoma of the lung smoked earlier and heavier than members of the general population. Doll[65] in 1952 published a second series. At this time they had interviewed 350 male patients with carcinoma of the lung. Over 74 per cent were pure cigarette smokers, 3.9 pure pipe smokers, and only 0.5 non-smokers. They also followed 108 females with carcinoma of the lung. Of these, 40 were nonsmokers, while 59, or 54.6 per cent, were cigarette smokers. Koulumies,[103] in his study of 351 carcinoma cases of the lung from Sweden, reported that there were 336 males. There were 335 cigarette smokers and usually heavy cigarette smokers. In a series of 300 controls, 246 were cigarette smokers.

Schrek[104] analyzed the patients in a Veterans Administration Hospital as regards smoking and carcinoma of the various organs. In a series of 82 cases of carcinoma of the lung, 68 per cent were moderate to heavy cigarette smokers, while 14 per cent had never smoked. The cigar or pipe smoker was unusual in their series. Watson,[11, 12] in a survey of 706 admissions to the Thoracic Surgical Service in Memorial Hospital, New York, found that 301 patients had carcinoma of the lung. There were 265 males, of whom 260 were smokers and unusually heavy cigarette smokers. In the group of 36 females with carcinoma of the lung there were 15 who were smokers. Watson stated that carcinoma of the lung in women in Memorial Hospital has definitely increased.

Wynder[105] has published several other studies regarding this entity. One interesting paper[64] was that concerning Seventh-day Adventists, a religious group who do not use tobacco. They examined hospital admissions of over 8,000 patients who were not Adventists and 564 patients who were Seventh-day Adventists. There were 118 cases of carcinoma of the lung among the non-Seventh-day Adventists. According to this, one would expect 10 cases of carcinoma of the lung in the Adventist group. However, only 1 such case of carcinoma was found. History revealed that this patient had smoked a pack of cigarettes a day for 25 years before he became an Adventist and his carcinoma of the lung occurred 3 years after cessation of smoking. Wynder has estimated that carcinoma of the lung in the Seventh-day Adventist male is 90 per cent less common than in the general population, even though he may live in the smog area of Los Angeles. Finally, another aspect of this situation is given by Dungal,[106] who reported a series of 1,939 autopsies done in Iceland between the years 1932 and 1948. There were 12 patients with primary carcinoma of the lung, and 9 of these were males. The autopsy incidence, then, is 0.6 per cent and would indicate that carcinoma of the lung is a rare disease in Iceland. Dungal stated that cigarette smoking became popular in Iceland at a much later date than in Europe. The rate of consumption of tobacco in Iceland in 1949 equaled the rate in England for the year 1920. He postulated that, if cigarette smoking did cause carcinoma of the lung, an increase in this should be seen in Iceland in the years 1960–1965.

Most of the studies quoted above were those done in a retrospective manner. Because criticism was leveled at this method of gaining information, a number of prospective studies have been performed.[107, 108, 109] One such study was reported by Doll[110, 111, 112] in 1954 and 1956. They sent questionnaires to the members of the British Medical Association as regards smoking habits and then routinely checked the cause of death of those who subsequently died. Over 40,000 of the 59,000 members answered their questionnaires. At the time of their second report they had classified some 1,700 deaths, of which there were 84 cases of carcinoma of the lung which could be verified. They were able to state that the death rate was much higher in smokers and was in proportion to the number of cigarettes smoked. Wynder[46] did a somewhat similar study and found that the annual mortality from carcinoma of the lung in physicians is 10 per 100,000 if the physician is a non-smoker, and 133 per 100,000 if he is a heavy smoker (35 cigarettes a day).

Hammond and associates,[15, 113, 114] as a tremendous project of the American Cancer Society, have tabulated data on 187,766 white men between the ages of 50 and 69. In this study they utilized the services of some 22,000 trained interviewers. As these patients were followed over a 4-year period, 448 died of carcinoma of the lung, and of these 15 had never smoked and 8 had smoked only occasionally. Eighteen patients had smoked pipe only, and 7 had smoked only cigars. The usual type of carcinoma was squamous-cell carcinoma of the lung. The authors also found that individuals dwelling in the cities smoked heavier than individuals dwelling in a rural area. The mortality was higher for all carcinomas and heart disease in the smoker. They concluded, "The most striking finding of this study is that men with a history of regular cigarette smoking had a much higher death rate than men who had never smoked cigarettes." The death rate was actually 68 per cent higher than the group who had never smoked.

Dorn[115] reported a somewhat similar study involving veterans followed from 1954. Two hundred and forty-four thousand individuals, usually males, were so followed. He found that the overall death rate for smokers was 58 per cent greater than that for non-smokers. The individual who had stopped smoking prior to 1954 had a lower death rate than those who continued to smoke. However, the rate was 30 per cent greater than the individual who had never smoked. Cigarette smokers were far more common, and the death rate could be measured in direct proportion to the number of cigarettes consumed per day. There were 283 cases of carcinoma of the lung in individuals who smoked cigarettes regularly or in combination with a pipe or cigars. There were 17 cases of carcinoma of the lung in individuals who never or only occasionally smoked.

These studies are considered so conclusive that both the United States Public Health Service and the British Ministry of Health have taken definite stands on this matter. The official position of the United States Public Health Service is as follows: In the light of these studies, it is clear that there is an increasing and consistent body of evidence that excessive cigarette smoking is one of the causative factors in lung cancer.[116] The British Research Council[117] in 1956 made the following statement: "For the squamous, oat cell, and anaplastic cancers which constitute the great majority of cases, the relationship is close, but for one relatively uncommon type (adenocarcinoma) the relationship is weak or nonexistent." To their minds it is a direct cause-and-effect relationship "that smoking is indeed a principal factor in the causation of the disease." Because of such a strong statement the British Ministry of Health has taken the official position that the major part of the increase in carcinoma of the lung is due to cigarette smoking. They have instructed their local health officers to so advise the public by the best means possible.[118]

Thus, we see that all studies, both prospective and retrospective, produce the same general conclusions.[119, 120, 121] The United States Public

Health Service and the British Ministry have accepted these facts. One is hard put to call these prejudiced or easily influenced groups. To the smoker who stubbornly refuses to accept the facts, one can only ask for a sort of a survey to bolster his naked position.[122-129]

CORRELATION OF SMOKING AND CARCINOMA OF THE LUNG[130, 131, 132]

If smoking does cause carcinoma of the lung, it would be interesting to ascertain the relative risk for an individual if he smokes a cigarette. At the present time there are 25,000 deaths a year from carcinoma of the lung, which is slightly over 1 per cent of all deaths. Doll[112, 133] estimated in England that 5 per cent of men and between 50 and 70 per cent of women were non-smokers. Rigdon,[9, 134] in an extensive survey of over 21,000 people, has calculated that some 73 per cent of men and 33 per cent of women smoke. To comprehend the amount of smoking done in the United States, the Department of Agriculture's figures for 1958 may be reviewed. They found that 436.3 billion cigarettes were consumed in the continental United States. This represents 185 packs of cigarettes a year, or about ½ pack of cigarettes per day for every person 15 years or older.

Breslow[2] has estimated that 93 per cent of all patients with lung cancer have smoked cigarettes. This is in contrast to 76 per cent of patients with carcinoma involving a site other than the lung. He states that carcinoma patients smoked earlier and heavier. The British Medical Research Council[117] has calculated that the heavy smoker has a death rate 40 times higher than that of the nonsmoker. The non-smoker has a chance of 1 in 300 of developing carcinoma of the lung, and the lifelong heavy smoker has a chance of 1 in 8. The individual who stops smoking reduces his risk at least one-half. Heller[135] has agreed with these statistics, stating that the non-smoker has a chance of 1 in 275 of developing carcinoma of the lung, whereas the individual who smokes 2 packs a day or more has a chance of 1 in 10.

Cutler[136] has charted the incidence of carcinoma of the lung. Of 1,000 males aged 40 who smoke more than 1 pack of cigarettes a day, 23 will develop carcinoma of the lung by age 60, and 80 will develop it by age 80. Concerning similar groups who do not smoke, 2 will develop carcinoma of the lung by age 60 and 6 by age 80. Levin[31] has calculated that a male aged 30 who smokes less than 5 cigarettes a day has a risk of lung cancer which is double that of the non-smoker. If he smokes 5 to 19 cigarettes a day the risk of lung cancer is 6 times that of the non-smoker. If he smokes 20 cigarettes or more a day the risk of lung cancer is 10 times that of the non-smoker. Ochsner[72] has stated that a man of 50 who has smoked 1 pack of cigarettes a day for 20 years has 50 times more chance to develop a carcinoma of the lung than a non-smoker.

LUNG CANCER IN NON-SMOKERS

The smoker frequently takes solace in the thought that the non-smoker also develops cancer of the lung. It is true that one may be a non-smoker for 70 years and at that time develop adenocarcinoma of the lung. However, we do maintain that the non-smoker's chances are far less than those of the smoker in developing the more common varieties of squamous-cell and undifferentiated carcinoma. We also recognize that occupation and air pollution are definite factors in the development of carcinoma.

Doll[133] has calculated that the risk of the non-smoker developing cancer of the lung is less than that of the general population and certainly less than that of the smoker. It is my belief that the incidence of carcinoma of the lung in the non-smoker is the same in both sexes and in both urban and rural areas. Wynder[47, 137] has reviewed a large series of proved carcinoma of the lung, in which 1.4 per cent of the males with epidermoid carcinoma of the lung were non-smokers. There were 14 such patients, and of these 9 had an occupational history such as painter or worker in metal dust, gasoline or oil fumes. Ten of the adenocarcinomas in men in this group were non-smokers. There was no significant occupational history. Wynder[63] has stated that all investigators have found that non-smokers have a much lower incidence of lung cancer as compared to smokers.

How Cigarette-smoking Causes Cancer

Hydrocarbons. Cooper,[86] in his analysis of cigarette tobacco smoke, showed quantities of 3.4 benzpyrene and 1.12 benzpyrene. These substances are known carcinogens found in coal tar and chimney soot. Rand[85] also isolated 3.4 benzpyrene from cigarette smoke. Wynder[138] was unable to produce skin carcinoma by painting mice with benzpyrene extracted from tobacco tar.

Cigarette paper. Cooper made "cigarettes" of cigarette paper which were burned in a smoking machine. He obtained the same hydrocarbons as from cigarettes but in a very small amount. Rand felt differently, however, stating that "3.4 benzpyrene in the tar from the paper was approximately 5 times as much as the amount found in the tar from tobacco alone." It is the opinion of Heller[16] and Doll[5] that cigarette paper is not the cause of cancer of the lung.

Arsenic.[11, 18, 21, 51, 138-143] Since arsenic is a known carcinogen, its possible role in the cause of carcinoma of the lung has been suggested by many. It has been estimated that 15 mg. of arsenic is present in 1 pound of tobacco. Seven to 20 per cent of the arsenic in the tobacco is lost in the smoke. Satterlee[143] states that the arsenic content of cigarettes has steadily increased more than 300 per cent from 1930 to 1950. The marked increase is due to the extensive use of arsenical sprays which have not impregnated the soil of all tobacco fields. Arsenic is, of course, found in the atmosphere—in smoke fumes from coal fires. The majority of investigators, however, do not believe that arsenic is the cause of carcinoma of the lung. Neubauer[142] states that in certain instances arsenical carcinoma of the skin has been associated with carcinoma elsewhere, including the bronchial tree. However, the possibility of coincidence cannot be ruled out. Hill[140] has reported that a study of workers handling arsenic daily revealed that some developed carcinoma of the skin but no carcinoma of the lung.

Both Daff[139] and Watson[11] have pointed out that Turkish tobacco has a much lower arsenic content than American, and yet the Turks have the same incidence of carcinoma of the lung. Wynder,[138] in discussing his experimental results, stated that there is some arsenic in the tar solution used to paint the skin of mice. He is of the opinion that mouse skin is relatively resistant to arsenical solution.

Nicotine.[12, 16, 135, 138, 144-147] It is the usual stated opinion that nicotine, while responsible for many systemic symptoms of smoking, does not cause carcinoma of the lung. It is estimated that there is about 10 mg. of nicotine per cigarette and that about 20 per cent of that enters the mouth. The absorption of this will depend on whether or not one inhales, since the longer the smoke is held in the buccal, pharyngeal, or bronchial regions, the more is absorbed. The blood concentration reaches about 1 to 4 mg. of nicotine during the smoking of a cigarette, and some concentration of nicotine can be found in the blood up to 10 hours after the last cigarette. Experimentally, nicotine-free concentrates have produced carcinoma of the skin in the mouse in the studies by Wynder.[138]

Pyrolysis

If tobacco is the cause of carcinoma of the lung, why are pipe- and cigar-smokers safer than cigarette smokers? Several partial answers immediately suggest themselves. Cigar tobacco differs from cigarette tobacco. Less inhaling is done by the cigar- or pipe-smoker. More tobacco is consumed by the cigarette-smoker. Pipe tobacco has an acid residue, while cigarette tobacco has an alkaline residue. A more nearly complete answer would seem to be the pyrolysis of tobacco during the smoking. Wynder[148] has summarized the evidence for such thought. He points out that smokers have a higher incidence of carcinoma of the mouth than one who chews tobacco. Condensed cigarette is more carcinogenic for the mouse than an extract of unsmoked tobacco. Also, if cigarette tobacco is smoked in a pipe at a higher temperature than is usual in oral smoking, the resultant tar is more carcinogenic. During smoking pyrolysis of the tobacco occurs so that carcinogenic polycyclic hydrocarbons are formed. The temperature of the burning tobacco is most important. The formation of carcinogenic hydrocarbons is highest at 800°C, less at 700°C, and nonexistent at 600°C. Wynder sums up this information in this manner: "It would appear from these data that if one could succeed in lowering the combustion temperature of burning cigarettes into this general range (600° to 700°C) one would drastically reduce the formation of tobacco carcinogens. One of the practical solutions to the tobacco-cancer problems lies in this general direction."

Filter Cigarettes and Cigarette Holders

A wave of popularity for filtered cigarettes has swept the United States. Though the cigarette companies proclaim that there is no harm in smoking, they hasten to embrace the filter and extol its virtues to the public. The main talk is of the value of removing tars and nicotine, while retaining the pleasant taste of the smoke. Actually, the efficient filter has to radically change the taste, and, if its efficiency were increased, it would block the smoke completely. The tobacco farmer is against the filter for several reasons. For one, they take up the space of the tobacco and are cheaper. Also, to provide the "kick" in smoking, a cheaper, coarser tobacco has to be used in the cigarette.

The American Medical Association[149, 150, 151] has studied filters extensively. The problem is a difficult one to evaluate scientifically, since the amount of nicotine and tars varies in different lots of the same tobacco. Also, the manufacturers change filters to improve smoking, effect, and quality. For example, the AMA investigators found that 1 filter was effective, but this conclusion was later changed by the manufacturer with subsequent loss of effectiveness. A great deal depends, as well, on which method the individual smoker uses. This same group also studied the use of cigarette holders with filters. Some of these were effective in removing tars, but with each additional cigarette smoked the effectiveness decreased.

Doll[65] attempted to correlate the use of cigarette holders and filters as regards carcinoma, but the short duration of their use made correlation impossible. It would seem, however, that individuals who smoke filtered cigarettes and/or use a cigarette holder smoke fewer cigarettes than the individual who does not use these agents.

Carcinoma of the Trachea

The point is often raised that, if smoking causes carcinoma of the bronchus, it should cause carcinoma of the trachea as well. This is so stated because it would seem that smoke concentrations would be higher in the trachea than in a lobar bronchus, yet carcinoma of the bronchus is definitely more common than carcinoma of the trachea. Some of the work of Hilding[152, 153, 154] and Macklin[155] may be of value in this regard. Hilding found that the velocity flow of cilia is greatest in the trachea and that the stagnation is not as great around bronchial openings, where the stream is slowed. In this later instance carcinogens would be concentrated. Macklin describes a "mucus raft" or "magic carpet" which flows constantly from alveoli to glottis. If carcinogens are inhaled the body attempts to expire them by way of this mucus raft. The raft becomes more narrow as it approaches major bronchi, since there is less surface area than in bronchioles or alveoli, hence water is given off and the carcinogens are more concentrated in the larger bronchi. In this same area the stream passes slowly because of many turns and forks. When the trachea is reached the mucus moves rapidly, hence there is no deposition of carcinogens. A mechanical factor which may be of importance is that the diameter of the trachea is relatively constant from vocal cords to carina.

CARCINOMA OF THE LARYNX

It is a fact that carcinoma of the larynx has a lower death rate now than 30 years ago. This is cited to show that smoking could not play a part in carcinoma of the larynx. A strong point is made that smoke concentration is higher in the larynx than in an individual bronchus. Whatever arguments are made one must first realize that the larynx is not the bronchus and vice versa. Actually, the incidence of carcinoma of the larynx has increased but not at the same rate as carcinoma of the bronchus.[42, 43] The death rate for carcinoma of the larynx is decreasing, since this particular carcinoma is easier to detect, safer to operate on, and has better postoperative results than carcinoma of the lung. Sadowsky[156] and Schrek[104] found that the percentage of smokers with carcinoma of the larynx was higher than in control groups. We must also remember that clinical and pathologic studies can directly correlate abnormal changes in the larynx and smoking. Among those we may cite are those of Ryan,[70] in which they could clearly connect severity of changes with the number of cigarettes smoked. Wallner[157, 158] may also be quoted as showing the direct correlation between tobacco smoke and the pathologic changes of laryngitis, polyps, and keratosis.

CONCLUSIONS

The recent increase in the incidence of carcinoma of the lung is real. The tumor is seen more in urban areas. Certain industries carry an extra hazard as regards lung cancer. Atmospheric pollution is considered a factor in lung cancer.

Definite precancerous lesions can be demonstrated in the tracheobronchial tree of cigarette smokers. Condensates of cigarette smoke and atmospheric air can produce skin tumors in laboratory animals.

Some 20 prospective and retrospective studies involving thousands of patients all reach one conclusion: Cigarette smoking is directly related to the causation of undifferentiated and squamous-cell carcinoma of the lung. Pyrolysis of cigarette tobacco at smoking temperature (700–800°C) would seem to play a most important role in the formation of carcinogenic substances.

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Urinary Abnormalities in Congestive Heart Failure[*][†]

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PROTEINURIA and abnormalities of the urinary sediment may appear in disorders not primarily renal in origin. Since examination of the urine is usually done routinely in these conditions, it becomes important for the clinician to determine the extent and nature of the lesion. Is it extrarenal and reversible on correction of the underlying disease, does it represent intrinsic nephropathy, or is a combination of factors operative in producing these urinary abnormalities? Such questions arise in the case of congestive heart failure. A careful scrutiny of the patterns of excretion of protein and the formed elements may help to clarify this problem, and therein lies the purpose of this paper.

TABLE 1

Qualitative Examinations of the Urine in Patients with Congestive Heart Failure

Disease	Total Cases	RBC			WBC			Casts		Proteinuria				
		Abnormal		Range RBC hpf	Abnormal		Range WBC hpf	Abnormal		Neg.	1+	2+	3+	% abnormal
		Number	Per cent		Number	Per cent		Number	Per cent					
Rheumatic heart disease	38	3	7.9	0–6	2	5.3	0–12	2	5.3	25	8	4	1	34
Arteriosclerotic heart disease	53	4	7.5	0–10	6	11	0–25	5	9.4	26	18	8	1	51
Thyrotoxic heart disease	7	0	0	0–4	0	0	0–7	0	0	7	0	0	0	0
Cor pulmonale	9	0	0	0–4	0	0	0–7	1	11	3	6	0	0	67
Totals	107	7	6.5%		8	7.5%		8	7.5%	61	32	12	2	43%

Normal values: RBC 0–3/hpf, WBC 0–7/hpf. Casts less than 1/lpf.

MATERIALS AND METHODS

The patients were studied during the past 15 years and came from the private practice of the author and the medical wards of Stanford University Hospital and the Community Hospital of San Mateo County, California. They suffered from heart disease of rheumatic, arteriosclerotic, thyrotoxic, nutritional, and pulmonic origin. Those with congestive failure had signs of fluid retention, cardiac enlargement, and usually venous distention. Mercuhydrin and less often Salyrgan were the mercurial diuretics used. The patients were carefully examined to exclude other disorders which might cause a renal lesion and an abnormal urine, i.e., hypertension, diabetes mellitus, infection, neoplasm and developmental anomalies of the kidney, fever, hypersensitivity diseases (lupus erythematosus, glomerulonephritis), and exposure to toxic agents. Quantitative urine cultures and intravenous pyelograms were frequently obtained. Qualitative examination of the sediment of 15 ml. of urine after centrifugation for 5 minutes at 1,750 r.p.m. was done in 107 patients (table 1); proteinuria was graded from 0 to 4+ after the addition of several drops of 20 per cent sulfosalicylic acid. The upper limits of normal were determined arbitrarily as 3 erythrocytes per high-power field, 7 white blood cells per high-power field, and less than 1 cast per low-power field. Quantitative sediment counts and protein excretory rates were carried out according to the method of Addis[1, 2] in 38 patients. Restriction of fluid intake usually followed the noon meal of the day of the test, although the use of diuretics and the severity of the patient's condition occasionally interfered with this. An 8–10 hour timed urine was started during the evening. Since the collection was carried out while the patient was at bed rest, the factor of orthostasis, which may increase the excretion of both protein and all the formed elements,[3] was avoided. An amount of urine equal to the ⅕-hour volume was then centrifuged for 5 minutes at 1,750 r.p.m., the supernatant fluid withdrawn until 0.5 c.c. remained, and a count made from the resuspended sediment which had been placed in the chamber of a hemocytometer. The protein determination was calculated from the amount of precipitate formed by the addition of Tsuchiya's reagent (phosphotungstic acid) to the urine, which was then centrifuged in a Shevky-Stafford tube. The serum creatinine and blood urea nitrogen were determined in 48 and 71 patients respectively (table 2), all of whom showed evidence of cardiac failure.

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TABLE 2

Serum Creatinine and BUN in Congestive Failure

Disease	No. Patients	BUN, Mg.%					Creatinine, Mg.%				
		10–20 (normal)	21–30	30–40	Other values	% abnormal	No.	1–2 (normal)	2.1–2.5	2.6–3.0	% abnormal
Rheumatic heart disease	36	25	6	3	2 (69, 58)	31	33	30	2	1 (2.7)	9.1
Arteriosclerotic heart disease	28	12	12	1	3 (61, 86, 56)	57	12	11	1	0	8.3
Thyrotoxic heart disease	3	3	0	0	—	0	1	1	0	0	0
Cor pulmonale	3	2	1	0	—	33	2	2			0
Nutritional heart disease	1	1									
Totals	71	43	19	4	5	39%	48	44	3	1	8.3%

RESULTS

Qualitative examination of the urine (table 1) showed there to be only a slight increase in the number of patients with hematuria (6.5 per cent), pyuria (7.5 per cent), and cylindruria (7.5 per cent). Those with thyrotoxicosis and cor pulmonale had the fewest abnormalities. More formed elements were excreted by patients with arteriosclerotic heart disease than by those with rheumatic valvulitis. Proteinuria, usually of low grade, was more prominent, being noted in 43 per cent.

On the other hand, when quantitative studies were made (table 3), the incidence of abnormality in congestive failure rose considerably: hematuria 45 per cent, pyuria 61 per cent, and cylindruria 29 per cent. However, on an average, only 2.7 million erythrocytes, 5.5 million white blood cells, and 290,000 casts per 24 hours were noted in a timed specimen. The casts were either granular or hyaline; none were blood, red blood cell, waxy, or broad. It should be pointed out that an appreciable percentage of compensated cardiacs excreted abnormal amounts of formed elements although their averages were lower except for the white blood cells (1 million red blood cells, 7 million white blood cells, and 36,000 casts). Proteinuria was found in 84 per cent of patients with congestive failure and

TABLE 3

Summary of Addis Counts in Heart Disease

Author	Disorder	No. Patients	No. Examinations	RBC million/24 hr.		WBC million/24 hr.		Casts 1 × 10^3/24 hr.		Protein Gm./24 hr.	
				% abnormal	Average & range	% abnormal	Average & range	% abnormal	Average & range	% abnormal	Average & range
Thayer	(Normal range for Thayer)				1		2		100		0.060–0.090
	Heart disease without C.F.	11	11	36	1.04 0–2.5	55	7.2 0–24	9.1	36 0–300	27	0.11 0.03–0.57
	Congestive failure	31	32	45	2.7 0–16	61	5.5 0–35	29	290 0–4500	84	1.1 0.02–8.3
	Rheumatic heart disease with C.F.	21	22	52	3.2 0–16	52	5.7 0–35	29	330 0–4500	81	1.4 0.04–8.3
	Coronary heart disease with C.F.	8	8	38	2 0–10	75	5.5 2–15	25	160 0–800	88	0.38 0.02–1.0
Stewart[14]	Heart disease without C.F.	7	7	0	0.3 .04–0.86	0	1.6	43	35 0–160		
	Congestive failure	18	18	50	1.8 1.4–6.2	28	6.2 0.14–36	33	130 0–920		
Goldring[11]	Congestive failure	26	38	31	0.63 0–5.2	77	19 0.12–246	73	3600 0–95,000	81	0.948 0.86–5.9
	(Normal range for Stewart & Goldring				.130 0–0.85		0.65 0.065–3.67		2.08 0–8.54		

averaged 1.1 Gm. per 24 hours. In 2 cases the clinical syndrome, characterized by hypoalbuminemia, heavy proteinuria, and hypercholesterolemia, suggested the nephrotic state, although there were no oval fat bodies, nor was there fat present in the casts. In 32 of 43 timed urines the specific gravity was less than 1.020. On 4 occasions the urine was studied in both congestive failure and the compensated state; on compensation the excretion of white blood cells and casts diminished only once, while hematuria and proteinuria returned to normal twice.

The blood urea nitrogen was elevated in 28 of 71 patients with congestive heart failure, 39 per cent. It usually ranged between 21 and 30 mg. per cent, when elevated, although there were 9 values higher than this (table 2). The serum creatinine, on the other hand, for the most part was normal. It was increased in only 4 instances out of 48, 8.3 per cent, and the highest was 2.7 mg. per cent. It is of interest that on 10 occasions the creatinine was normal, while the blood urea nitrogen was increased to levels ranging from 26 to 68 mg. per cent, suggesting prerenal azotemia.

DISCUSSION

It is an established fact that the urine in congestive heart failure may contain increased amounts of protein, white blood cells, erythrocytes, and casts.[2, 4-7] However, in our qualitative study, a relatively small percentage of patients showed a slight increase in the number of formed elements (table 1). Segall[8] found the urine to be normal in 6 of 7 cases of chronic cor pulmonale; this agreed with our series of 9 patients, except that 1+ proteinuria appeared in 6. In cardiac failure urinalysis has revealed epithelial[5, 6, 7] and fatty casts (along with oval fat bodies),[2] as well as hyaline and granular types. Quinn[9] observed oval fat bodies, thought to be desquamated tubular epithelial cells laden with fat droplets, in 40 per cent of patients with congestive failure of diverse origin. Lippman[2] reported occasional instances of broad renal failure casts, associated with azotemia. When renal congestion is relieved by control of cardiac insufficiency, the urinary sediment may return toward normal.

Oliguria and a high urinary specific gravity (1.025–1.030) are considered characteristic of cardiac failure.[6, 7, 10] However, inability to concentrate above 1.019 was noted in 7 of 26 patients (27 per cent) by Goldring[11] and 2 of 6 by Seymour.[12] This is less than the 24 of 31 (77 per cent) seen in this series but may partially be explained by the fact that some of our patients were undergoing diuresis and others were too ill for adequate dehydration. Furthermore, the urinary output may be higher and the specific gravity thus lower at night in decompensated patients, and the timed urine was collected during this period. Smith[13] attributed this inversion of the diurnal cycle to a nocturnal decrease of water reabsorption by the tubule superimposed upon increased glomerular filtration. Thus, it is clear that the specific gravity of urine is not universally high in congestive failure, and this hyposthenuria may be related to a functional defect of the distal tubule.

When the Addis count is applied to the study of cardiac failure, the incidence of hematuria, pyuria and cylindruria rises greatly in comparison to routine examination of the sediment. Goldring[11] and Stewart[14] found similar increases (table 3). Their lower cell counts may be due to an earlier technic used in doing the Addis count. During compensation a smaller proportion of patients excreted abnormal amounts of formed elements. It is not clear from their protocols whether Goldring and Stewart excluded urinary tract infection with urine cultures or rejected from their series those patients with disorders which might in themselves result in an abnormal urine; indeed, 4 of Stewart's cases were hypertensive. In our series a low-grade pyuria appeared most frequently in arteriosclerotic heart disease, while hematuria and pyuria occurred equally in half the patients with rheumatic heart disease.

The exact mechanism responsible for increased excretion of cells and casts in heart failure is obscure. Pathologically the kidney shows hyperemia, edema, and degenerative changes in the tubule (cloudy swelling, necrosis, and fatty infiltration), in addition to occasional instances of glomerulonephritis, infarction, and vascular sclerosis.[15, 16, 17] Thus, probably a variety of pathologic processes contributes to the abnormal urinary picture. The degenerative tubular changes may account for the presence of white blood cells and epithelial cells in the sediment, as well as increased cast formation. To explain hematuria is more difficult, since the pathologist usually sees no evidence of glomerulitis, intrarenal hemorrhage, or significant exudation. The increased excretion of red blood cells may be related to elevated renal venous pressure and consequent passive congestion, since experimental constriction of the renal vein regularly leads to an outpouring of casts and erythrocytes by the kidney.[18]

Of all the indices of abnormal urinary function the most common is proteinuria, being noted by us in 84 per cent, Goldring[11] 81 per cent, and Race[19] 88 per cent. Both this study and that of Goldring found an average excretory rate of 1 Gm. per 24 hours, while 71 per cent of Race's patients had a grade I to II albuminuria (5 to 50 mg. per cent). However, this may reach nephrotic levels, as high as 15 Gm. per 24 hours being reported by Lippman.[2] Indeed, the nephrotic syndrome may develop during the course of congestive failure. A total of 15 cases are clearly described in recent years,[20-24] although the concept of a causal relationship between the 2 conditions is controversial.[24] There are several pathogenetic mechanisms that may be used to explain the proteinuria of cardiac decompensation. Experimentally, in the dog, raising the pressure in the renal vein regularly produces albuminuria,[18, 25, 26] and this may take place without reduction in renal blood flow.[25, 26] In man renal venous pressure is elevated during heart failure[27] and therefore may be the responsible agent. Another possibility is renal vasoconstriction, which Starr[28] found would lead to transient albuminuria in several mammalian species. This may be mediated by renin, which is increased in the renal vein blood of patients with cardiac insufficiency,[29] and which produces efferent arteriolar constriction.[30] Starr[28] believed that renal vasoconstriction increased the capillary permeability of the glomeruli, through which greater quantities of protein would pass than could be reabsorbed by the tubules. This concept may be substantiated by the discovery of protein-rich fluid in the tubular and glomerular spaces of kidneys in patients in cardiac failure.[17] Finally, the primary defect may be the inability of the tubule, afflicted by degenerative changes, to reabsorb the small amount of protein normally presented to it.

A reversible form of nitrogen retention may accompany congestive failure[5, 6, 10] and add to the difficulty of differentiating it from nephritis. This usually takes the form of prerenal azotemia, i.e., elevated blood urea nitrogen with a normal creatinine. In cardiac decompensation the level of blood urea nitrogen rarely rises above 40 mg. per cent, and the creatinine is 2 mg. per cent or less in over 90 per cent of patients. Fishberg[31] considers the urea retention to be the result of renal arteriolar constriction and reduced renal blood flow. When compensation returns, azotemia disappears unless intrinsic nephropathy is present.

Since almost all patients with significant heart failure receive mercurial diuretics, the role of these agents in causing urinary abnormalities must be considered. Azotemia, rarely progressing to death in uremia, and increased excretion of protein, casts, and erythrocytes have followed the administration of organomercurials in cardiac failure.[4, 32-43] However, the incidence of these changes is quite variable and usually not high (table 4), while the role of cardiac failure in their pathogenesis has not been properly appreciated. Pathologic examination of the kidneys has shown degenerative and regenerative changes in the tubules with relatively normal glomeruli.[32-35, 44] This suggests the lesion produced by mercury itself.[45, 46] On the other hand, the pertinent literature is replete with testimonials to the safety of mercurial diuretics presently used and to their lack of renal toxicity.[35, 37, 47-54] Furthermore, Coblentz[55] demonstrated that the parenteral use of mercurial diuretics in heart failure evoked neither a rise in the nonprotein nitrogen nor an increase in proteinuria, even when azotemia and proteinuria were present at the onset of therapy. In those patients of ours who did not have a history of mercurial injections, 9 of 12 showed a proteinuria, 5 hematuria, 6 pyuria, and 1 cylindruria. These findings tend to support the thesis that congestive heart failure is more important than the organomercurials in producing the urinary abnormalities described in this study.

Summary and Conclusions

As measured by the Addis count, patients in congestive failure were found to excrete on an average 2.7 million erythrocytes, 5.5 million white blood cells, 290,000 casts, and 1.1 Gm. of protein per 24 hours into their urine. These excretory rates were generally lower than those expected in acute or chronic glomerulonephritis, although there were a few exceptions with rates of a higher magnitude that might cause confusion in the differential diagnosis. The incidence of hematuria was 45 per cent, pyuria 61 per cent, cylindruria 29 per cent, and proteinuria 84 per cent.

TABLE 4

Incidence of Renal Abnormality Following Mercurial Diuretics

Author	Mercurial Used	No. of Patients	Hematuria		Cylindruria		Proteinuria		Azotemia		Pathology Studies
			No.	%	No.	%	No.	%	No.	%	
Sprunt[32] 1930	Merbaphen	9 Autopsies									1 case of mercurial nephritis with tubular degeneration
Sprague[40] 1931	Salyrgan	60	3	5	1	1.7	2	3.3			
Tarr[33] 1932	Salyrgan	30 Autopsies									3 cases of tubular epithelial necrosis
Herrmann[11] 1937	Mercupurin, Salyrgan	70	0		0		1	1.4			
Evans, W.[42] 1941	Esidrone, Salyrgan, Neptal	50	0		0		0		1	2	
Modell[50] 1945	Mercuhydrin	43	0		0		0		0		
Finkelstein[49] 1946	Mercupurin Mercuhydrin	206	0		74/181	41	0		0		
Kaplan[39] 1953	Neohydrin	10	0		0		5	50	3/9	33	
Evans, J. M.[37] 1956	Neohydrin	40	1	2.5	2	5	0		0		
Leff[53] 1957	Neohydrin Mercuhydrin	48	0		1	2.1	7	14	5 (BUN) 1 (Creatinine)	10 2.1	

Degenerative tubular changes may account for pyuria and cylindruria, while elevated renal venous pressure and consequent passive congestion may cause the low-grade hematuria.

Proteinuria may be related to renal vasoconstriction mediated by renin, elevated renal venous pressure, or a tubular defect.

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(Continued on page 533)

Fibrinolytic Activity of the Umbilical-cord Blood*

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LOW FIBRINOGEN LEVELS in fetal[1] and newborn[2] blood suggest that fibrinolysis or fibrinogenolysis may be active in utero. Further support is given this view by the findings of Quie and Wannamaker,[3] that the blood of newborns is deficient in plasminogen (the precursor of plasmin or fibrinolysin), and of Phillips and Skrodelis,[4] that umbilical cord blood is low in inhibitors of fibrinolysin.

Whereas the fibrinolytic activity of the blood of adults has been extensively studied, observations of this phenomenon in fetal or umbilical-cord blood have been few. Chaplin,[5] Ströder and Künzer,[1] and Phillips and Skrodelis,[4] employing dissimilar methods, concluded that umbilical-cord blood was fibrinolytically active as compared to maternal blood. Chaplin found no correlation between the degree of fibrinolytic activity and fibrinogen levels.

Studies were made of fibrinolytic activity of umbilical-cord blood in 106 newborn infants.

MATERIALS AND METHODS

Samples were collected immediately after delivery of the fetus by allowing the free-cut placental end of the umbilical cord to bleed into sterile glass test tubes containing 0.1 molar sodium oxalate, 1 part for each 9 parts of blood. Maternal venous blood was obtained by venipuncture soon after delivery and transferred to test tubes similarly prepared. Samples were gently mixed and placed in the refrigerator at 4°C. All laboratory procedures were carried out within 18 hours. All specimens showing macroscopic clots, even though small, were discarded.

Fibrinogen determinations were performed according to the technic of Ratnoff and Menzie.[6]

Fibrinolytic activity in a preliminary survey was carried out with the method of MacFarlane and Biggs, as modified by Moser.[7] Subsequently, the quantitative method of Adelson and Roeder[8] was employed.

RESULTS

The preliminary survey showed 14 of 106 umbilical-cord bloods to possess fibrinolytic activity of sufficient degree to effectively lyse fibrin clots. No maternal bloods proved to be active by this method.

Initial fibrinogen determinations on maternal and umbilical-cord bloods showed mean values of 360.4 S.D.,† 69.8 mg. per cent, and 233.8 S.D., 70.4 mg. per cent, respectively. After 24 hours' incubation maternal bloods fell to 350.4 S.D., 71.0 mg. per cent, whereas umbilical-cord bloods fell to 205 S.D., 61.9 mg. per cent. Thus fibrin mass was reduced by only 2.7 per cent in maternal plasma as compared to 12.3 per cent in plasma of umbilical-cord blood. No correlation was found between parity or duration of labor.

DISCUSSION

The above findings, while variable and less impressive than previous studies, show that fibrinolysis is more active in umbilical-cord blood than in maternal blood.

The hypothesis that fibrinolysin, or its activators, may be released at the time of separation of the placenta to act locally or to be absorbed into the maternal circulation is suggested by a number of clinical observations. Greenberg[9] noted that postpartum blood ceased to clot within minutes following separation of the placenta. Ratnoff, Colopy and Pritchard[10] found a slow rise in fibrinolytic activity of maternal blood, reaching a peak within 4 hours following normal delivery. Hodgkinson, Margulis and Luzadre[11] found a slow, but significant, fall in fibrinogen levels of maternal blood in intrauterine fetal death. Finally, abruptio placentae is often complicated by severe degrees of hypofibrinogenemia, and, at times, by active fibrinolysis. While Weiner, Roby and Reid[12] have attributed fibrinogen depletion to defibrination, secondary to the release of placental thromboplastin, Moloney, Egan and Gorman[13] have proposed that it is due to fibrinogenolysis or fibrinolysis, while Albrechtsen[14] has suggested that both mechanisms may be operative. The latter hypothesis has been thought to be less likely because fibrinolysis is demonstrable in only a portion of cases. In the light of our present knowledge of the behavior of this enzyme, namely, that it is avidly adsorbed by fibrin clots, it would seem that further study of this aspect of umbilical-cord blood is warranted.

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* From the Section of Medicine, Washington Clinic, Washington, D.C.

† Standard deviation.

Summary and Conclusion

Qualitative studies on 106 umbilical-cord bloods showed 14 to possess significant fibrinolytic activity.

Quantitative tests for fibrinolytic activity occurring within 24 hours at 37°C on umbilical-cord blood, as compared to homologous maternal blood, revealed fibrinolysis of 12.3 per cent in the former as compared to 2.7 per cent in the latter (done at 37°C for 24 hours).

The relation of these findings to clinical observations, particularly to abruptio placentae, has been discussed.

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Reappraisal of the Concept of Drug Addiction*

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CERTAIN ASSUMPTIONS are commonly made about the so-called phenomenon of "drug addiction." These assumptions are rarely challenged on either logical or clinical grounds. A careful scrutiny of them fails to elicit any substantial factual background to validate them. Since the very essence of scientific objectivity rests on the necessity of challenging unproven assumptions, it behooves the medical and social sciences to take a new, fresh look at the facts.

Briefly, the assumptions made are of the following order:

1. That there exists, in some people, the clinical condition known as "drug addiction," which is unique to those people; that in another group of people there exists the "potential" of "drug addiction"; and that in the remaining majority of people neither the actual nor potential "addiction" exists.

2. That the phenomenon of "addiction" is characterized by a nearly irresistible drive, or hunger, or craving which impels the "addicted" individuals to exert great efforts in order to obtain and partake of certain drugs.

3. That this hunger or craving is a result of some physiologic need for a particular chemical compound which causes the "addicted" individual to dose himself at regular intervals with this chemical, and to resort to desperate means, if necessary, to obtain a supply.

4. That this physiologic need is a biochemical process in the body tissues which is such that the particular "addicting" drug must be taken into the body in order to maintain some kind of chemical equilibrium necessary to the individual's comfort or health.

5. That this peculiar chemical phenomenon is established by virtue of taking the drug and, although not existing prior to the first experience, there was a "potential" for its development.

6. That there exists, also, the phenomenon known as "withdrawal," which is a pathologic state produced in the "addicted" individual soon after he ceases taking the "addicting" drug. Furthermore, this "withdrawal" is a result of the physiologic equilibrium which is alleged to be maintained by ingesting the drug, and which is correspondingly disrupted with tragic effects when the drug is discontinued.

7. That there exist certain types of chemical products which are capable of producing the alleged "addiction," each one having the characteristic capacity of entering into the body's chemical homeostatic mechanisms and becoming essential components of them. That, furthermore, as long as the individual continues to take the "addicting" drug in certain doses and at certain intervals a relatively healthy physiologic state is maintained.

There are a number of facts about this phenomenon of "addiction" which from an unprejudiced viewpoint will be seen as offering a very substantial challenge to all these assumptions. The following are some of these facts posed as rhetorical questions:

1. What inference can be drawn from the fact that the theory of the alleged "craving" is invariably initiated by and supported by the "addict" himself? Do we know of any other clinical phenomenon in which the prevailing theory explaining it was invented by each (not just one) patient who was the victim of the condition? What do we all know to be true about the reliability of the "addict" as a witness

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* From the Division of Medical Sciences, National Research Council, Washington, D. C.

concerning himself? The well-known fact of his unreliability as a witness should make us suspect the validity of any theory he espouses.

2. Why is it that this peculiar phenomenon of "addiction" occurs only in people having certain types of personality, and that they are invariably characterized by gross degrees of immaturity, not only in relation to the taking of drugs, but in the conduct of their entire lives, including the period prior to becoming an "addict"? Why is it that the "addict" frequently takes to gambling in the same kind of unreasonable, self-defeating way that he takes to drugs? Does gambling involve a biochemical state in the body which requires frequent bets on the horses in order to be kept in equilibrium? Those who claim that "addiction" sometimes occurs in normal, well-adjusted people demonstrate only their lack of experience in examining carefully the manner of thinking and acting of these people, for no exceptions will be found to the rule that "addiction" goes hand in hand with irrational ways of thinking.

3. Why is it that "addicting" drugs are invariably and exclusively those whose psychologic effect is the same, in the sense that they are all analgesic-sedatives (comfort-producing chemicals), even though their chemistry is quite different. No one, for example, becomes "addicted" to turpentine or to any chemical having an uncomfortable effect. If the chemical phenomenon which is alleged to take place in "addiction" really had the characteristics ascribed to it, we would expect that "addicting" drugs would be similar from a chemical point of view but not necessarily alike in their psychologic effect. For example, if this chemical phenomenon actually existed, we could predict that the "morphine addict" could be maintained by some chemical variation of morphine which would retain its basic chemical characteristics but without its analgesic properties. Such is not the case, however. On the other hand, it is possible, and very frequently happens that the "addict" will freely switch from one drug to another, which though different chemically is similar in being an analgesic. The barbiturate "addict" often graduates up the "addict" scale to morphine or heroin, or "tapers off" from heroin to barbiturates.

4. Why is it, also, that the degree of "addiction" as measured by its intransigence is directly proportionate to the potency of the analgesic-sedative properties? We know the morphine "addict" is a more severe problem than the codeine "addict," and the difference in severity is in direct relationship to the potency of the drugs as analgesics.

5. We know of many clinical conditions in which a pathologic state is produced when there is an inadequate supply of certain chemical products available to the body tissues and which can be restored to a near physiologic state by supplementary doses of these chemicals. Examples of these are the vitamin deficiencies, diabetes mellitus, diabetes insipidus, hypothyroidism, pernicious anemia, etc. The chemical phenomenon known to exist in these conditions is quite comparable to that which is alleged to exist in the "addict." Why is it, though, that a patient with scurvy has no "craving" for vitamin C, or that the patient with pernicious anemia has no irresistible drive to buy, borrow or steal supplies of liver extract? The hypothyroid patient certainly needs thyroid extract in order to be more healthy and comfortable, but he does not "crave" it the way the "addict" "craves" his morphine. How is it, also, that the "addict's" "craving" can be so exquisitely tuned to mathematics that only a certain precise quantity of his drug must be taken in?

6. Why is it that an addict often goes for rather prolonged periods of time (such as during hospitalization) with no drugs, and without ill-effects, but on some other occasion when he stops taking his drug is almost immediately presented with the problem of "withdrawal"? It is relatively easy to conceive an environmental situation wherein the "addict" remains quite comfortable without drugs, and this kind of environment is invariably one which takes his responsibilities away from him.

7. Why is it that the "addict's" ingestion of drugs goes up and down in relation to the pressures which reality places on him? Invariably, reality is painful to the "addict," as measured by the very uncomfortable way in which he handles his responsibilities. What is the chemistry of this phenomenon? How can his peculiar chemical equilibrium be altered so radically by the simple process of someone taking his responsibilities for him?

8. Why is it that the onset of "addiction" invariably takes place in relation to crises in the patient's social life?

9. Why is it that the phenomenon of "withdrawal" never occurs in the absence of major complications? Always there are major problems of nutrition, illness, finances, family, the law, etc. Could it be that the clinical and/or psychologic manifestations of "withdrawal" are a result of these complications?

10. Why is it that physicians who become "addicts" do not demonstrate the drastic "withdrawal" signs of the more typical "addict"? Could there be some relationship between this and the fact that physicians have access to chemically pure drugs, but that the typical "addict" relies on illicit, impure chemicals? Why is it that nearly 100 per cent of physician "addicts" in certain studies have been "cured" but that less than 30 per cent of the "addicts" at Lexington are "cured"? Can this be explained by a difference in chemistry between physicians and non-physicians?

If the commonly held assumptions about "addiction" fail to follow from the known facts about the "addict," what other theories might be postulated which conform to the facts? The following are some suggestions along this line:

1. It is suggested that the "craving" of the "addict" is simply a manifestation of the universal human drive to seek a state of physical and psychologic comfort. The difference between the "addict" and the "normal" person lies in the fact that the former has not found a successful way of achieving this because he does not rely on the more normal and responsible methods but on self-defeating, irrational, immature methods which are perpetually failing to accomplish their ends, thus creating a constant state of discomfort (anxiety, frustration, disappointment, anger, lack of confidence, etc.). This discomfort he seeks to correct in his typical immature way, and he invariably resorts to many different kinds of experiments to achieve comfort. If he finds that some drug or alcohol produces a more comfortable state, he, being immature in his thinking, is likely to rely heavily on it for his comfort. He is just as likely to resort to other irrational devices, such as gambling, religion, excessive dependency on others, etc. All of the methods he tries have one feature in common, and that is the avoidance of responsibility, and this is what makes them all self-defeating. When, in psychotherapeutic treatment, he comes to adopt a more rational, responsible way of living, his "addiction" ceases to be a problem.

2. It is suggested that the "withdrawal" be regarded as a manifestation of toxicity which is produced by one or more of the following factors in various combinations: excessive intake of the "addicting" drug (in other words, the toxic effect of taking the drug rather than the withdrawal of it, but while taking it, the toxic effects tend to be masked by its analgesic properties), fever (very commonly present, and due to intercurrent infection), malnutrition (almost invariably present in the "withdrawal" state), and foreign chemicals present in bootleg drugs (very common), further complicated by a critical psychologic state. Recognizing the "withdrawal" state as a problem of toxicity with major psychologic overtones is helpful in planning a treatment program. Seeing it as a situation produced by drug discontinuance, however, offers no therapeutic solution.

3. Above all, it is necessary, in order to understand the phenomenon of "addiction," to regard the patient's own view of his problem as a distorted one which will be more misleading than helpful if taken at face value.

The Use of Chymotrypsin to Decrease Postoperative Edema in Abrasive Surgery

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Washington

KURTIN[1] first introduced abrasive technic in 1952. The literature has since then been flooded with numerous modifications of his original method. Most of these modifications tended to make the abrasive technic both more effective and more rapid. New instruments and modification of old instruments were introduced one after another. However, the greatest improvement, that of patient comfort, did not occur until April, 1955, when Freon 114, a refrigerant new to this procedure, was introduced.[2] This eliminated the blower which was used to hasten the evaporation of ethyl chloride and which caused the greatest discomfort from the operation. Although the operation is certainly tolerable to most patients, certain side-effects are uncomfortable. If some of these could be alleviated patient comfort would be increased.

In 1959 I[3] recorded the use of a combination of carbazochrome salicylate, hesperidin, and menadiol sodium diphosphate in abrasive surgery. This product* insured the formation of a scab which was thinner, more pliable, and of shorter duration than had been possible heretofore; as a result, the patient's discomfort was decreased.

One of the side-effects of abrasive surgery is edema. This sometimes becomes so severe that the patient's eyes are completely closed for a day or so. Any possible lessening of this edema would be of great value, and any drug which would accomplish this would be an asset.

Chymotrypsin is a proteolytic enzyme for which the reduction and the prevention of inflammation, trauma and edema have been claimed. It is supposed to hasten absorption of blood and lymph effusions. Because of these claims, this product, if successful, would be of value in abrasive surgery to lessen the troublesome edema. An experiment was set up to determine if the use of this enzyme would be of benefit in abrasive surgery.

Chymotrypsin was crystallized in 1933. Like trypsin it is an enzyme of the pancreas, and of the 2 is the most recently used clinically. The anti-inflammatory effect of chymotrypsin is greater than that of trypsin.[4] Chymotrypsin is also less toxic by rapid administration than is trypsin.[5] Trypsin accelerates the clotting of blood, chymotrypsin does not.[6] The specific mode of action of chymotrypsin is not known. There are several applicable theories to explain its effect. The administration of chymotrypsin may help restore a disturbed enzymatic balance system and increase the permeability of tissue through its fibrinolytic effect, thereby reducing inflammation and edema.

METHODS AND MATERIALS

Ten patients with postacne scars who were to undergo abrasive surgery were used as the basis of this investigation. The first abrasive procedure on each of these patients was done without the administration of chymotrypsin. The second operation on each of these patients was done at an interval of 6 to 8 weeks and with the administration of chymotrypsin. A comparison was made in the amount of edema when abrasive surgery was done with and without the administration of chymotrypsin. Using the same patient for both operations with and without chymotrypsin seemed to be an adequate method of control.

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* The chymotrypsin aqueous solution used in this study was supplied by Dr. J. A. Hubata of the Armour Pharmaceutical Company, Kankakee, Illinois.

Five thousand Armour units (1 c.c.) was injected intramuscularly into the gluteus maximus muscle prior to the second abrasive procedure and then repeated on the first and second days postoperatively.

Figures 1 and 2 demonstrate less edema with the use of chymotrypsin in a patient of this series.

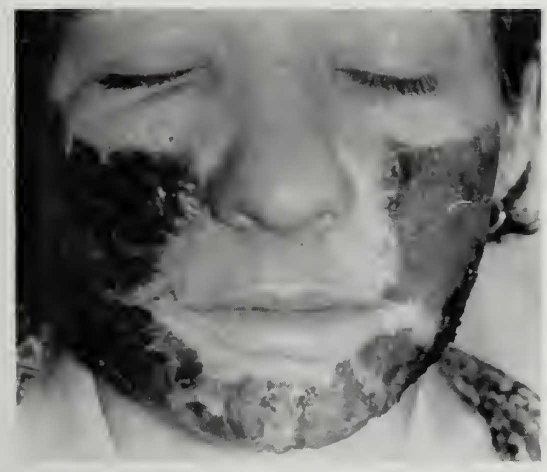

FIG. 1. Three days after abrasive surgery without the use of chymotrypsin.

REACTIONS

Many of the patients complained of pain at the site of injection. Two patients developed transitory dizziness after the injection, which was only fleeting in character and disappeared within 5 to 15 minutes. The pain was not severe enough to withhold the use of the drug. No explanation for the dizziness can be given, and it is quite possible that this was not a result of the medication, but, rather, a psychic response to the surgery.

DISCUSSION

Chymotrypsin is not a drug which can be expected to act specifically on any entity. It is, rather, a valuable adjunct in the treatment of many diseases. Tissue inflammation is apparently produced by the elaboration of certain chemical substances, some of which are proteolytic products.[7] Chymotrypsin elevates the level of the antiproteolytic activity, and in doing so, decreases or halts the local inflammation.[8] The decrease in local inflammation, therefore, produces a decrease in the edema, and as a result the patient is much more comfortable. No contraindications to this method of therapy have been seen in this series.

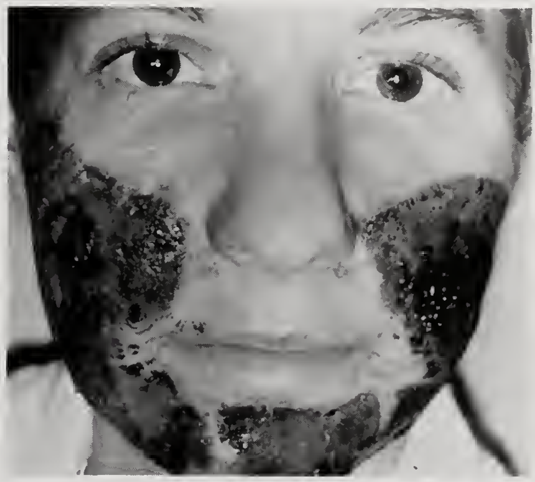

FIG. 2. Same patient 3 days after abrasive surgery with chymotrypsin, 5,000 Armour units daily for 3 days. Note decrease in edema, particularly under the eyes.

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(Continued on page 533)

Illustrating Medical Subject Matter

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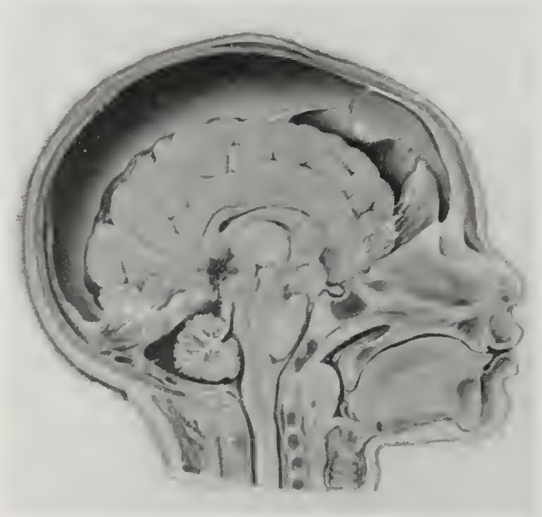
ROGER M. MORRELL, M.D.

Research Fellow, Montreal Neurological Institute

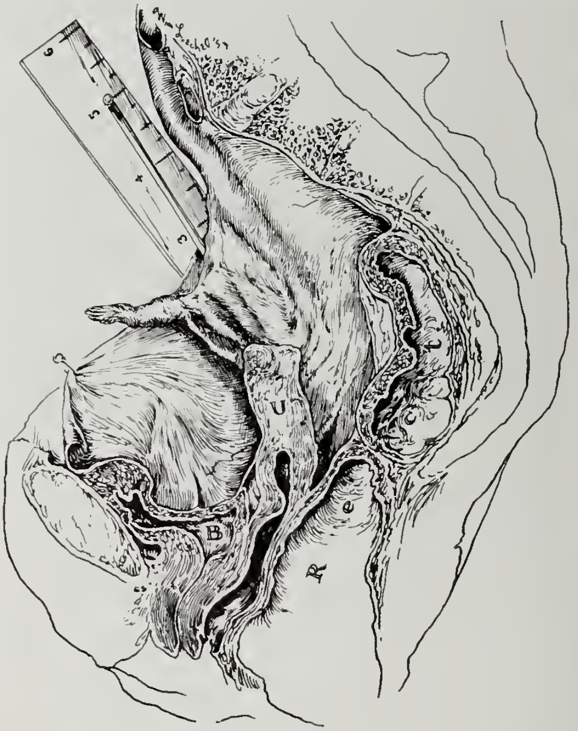
MEDICINE'S SPECTACULAR ADVANCES of the last century have been marked by a concomitant evolution of the paramedical sciences. It is important that each field properly explain its mission.

Although illustration is an ancient handmaiden of medicine, its present status needs elucidation. Every physician recalls how he learned from (or at least contacted nightly) certain illustrations in textbooks. Whatever the subject (anatomy, physiology, surgery, etc.), pictures had their place in his learning process.

Medical illustration is any presentation upon a flat surface executed primarily for professional persons as a means of teaching or demonstration. The generic term "medical illustration" also includes photography and, to a much lesser extent, *moulage* (the moulding and casting of subject matter). Usually one specializing in photography calls himself a medical photographer. Therefore, drawing, painting and photography are the only disciplines which submit themselves for publication. A beautiful cast of a specimen is seen and handled by only a few; it finds its way into the minds of many as a drawing or a photograph.



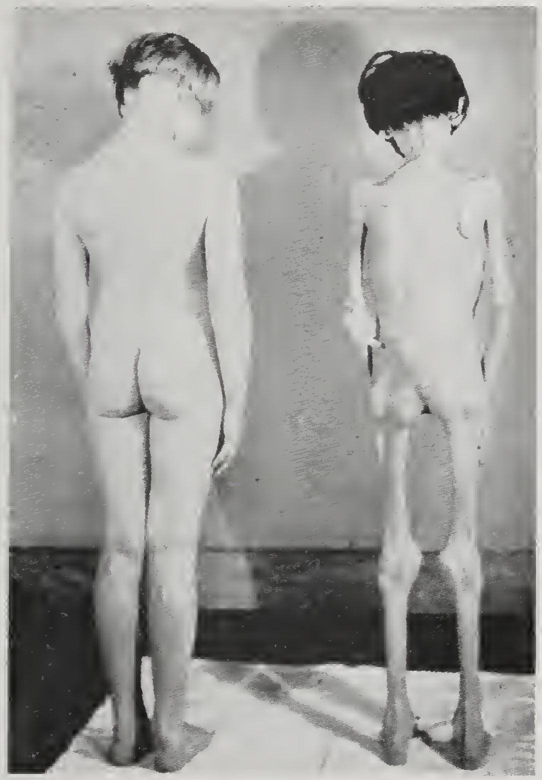
This pathologic subject done in halftone presents greater selective definition than might be possible with a photo.



This subject matter would have been a photographic problem due to highlights and overemphasis of textures. The line cut is cheaper and clearer.

The golden age of medical illustration in the United States was ushered in by Max Brödel, who came to Johns Hopkins from Leipzig, Germany, in 1894. His pioneer work with Kelly, Welch, Halsted and Osler revolutionized medical illustration and put it on a high, scientific plane.

This man established standards of detail and accuracy which are difficult to attain and almost hopeless to surpass. At present, there are about 100 illustrators in the United States who have been formed in a similar mold. These persons are thoroughly trained.

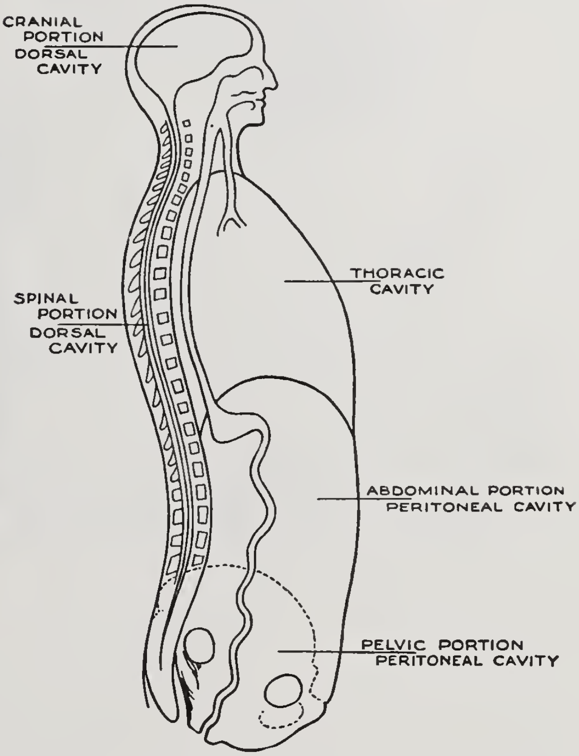


This photo is better than any drawing. It is authentic and has human interest. Reproduced by permission from BERMAN, J. K.: Synopsis of Principles of Surgery. St. Louis: Mosby, 1940, p. 534.

There are many other individuals who occupy themselves with the portrayal of medical subjects, although they may never have witnessed an autopsy, operation, or dissected a pathologic specimen. These individuals may have considerable talent and interest, but lack the academic medical training of the qualified medical illustrator.

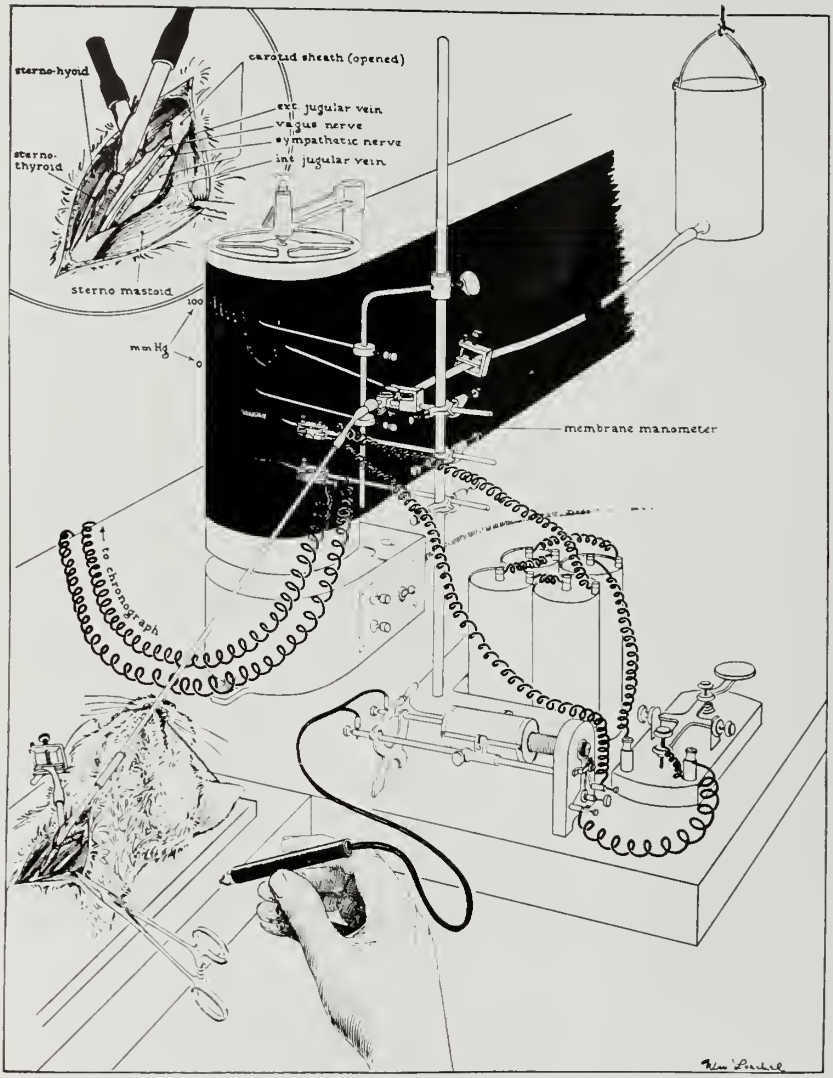
There are 11 schools in the United States which teach medical illustration. They are usually operated in conjunction with medical schools or medical centers. The student takes anatomy with medical students and learns the scholastic and technical approach to the subject of portraying upon paper only that which he sees and understands anatomically.

The physician contemplating the writing of a book should know the kind of illustrations he wants and whom to employ to obtain them. Publishers can furnish the names of competent illustrators. An illustrator with experience in seeking out and portraying detail can be depended upon for assistance in the solution of ancillary problems, such as layout, etc. It is a risk to the physician-writer's finances and prestige to employ the unqualified person, since his (the physician's) name will be associated with the level of quality of the illustrations in his book. With illustrations, as with his own work, excellence and pride should be his goals.


CRANIAL PORTION DORSAL CAVITY
THORACIC CAVITY
SPINAL PORTION DORSAL CAVITY
ABDOMINAL PORTION PERITONEAL CAVITY
PELVIC PORTION PERITONEAL CAVITY

An example of dependable information but unattractively presented. It is amateurish.

For further clarity, a brief explanation of what is not medical illustration is in order.



Complicated apparatus shown in line cut removes unnecessary material and is less expensive than retouching and "dodging" in a photo of the same subject. Reproduced by permission from AMBERSON, W. R., AND OTHERS: Laboratory Notes in Physiology, 3rd ed. Baltimore: Williams & Wilkins, 1950, p. 41.

Photographs of apparatus, instruments, etc. are not medical illustrations or medical photography, although they might be designated as figures or plates in a medical book. They need not be taken by a medical photographer, although to have them taken by a medical photographer would assure an awareness of detail not possessed by every commercial photographer.

Charts and graphs are not medical illustration, although they too may be designated as figures or plates or tables in a medical book. They can be executed by a typist who has "an eye" for composition, or by a draftsman who knows nothing of their significance but who can do a neat, clean job.

Exhibits are not medical illustration, although they serve to unify the medical information contained in drawings, photos, X-rays, or mounted models, which in themselves would be lost or lack continuity unless effectively presented.

In the planning of a book of anatomic material or surgical procedures, no illustrator should be accepted who cannot demonstrate previous work, preferably published work.

Some examples of the various types of medical illustration and the purposes they serve are to be found in the accompanying illustrations. The details of arrangement between writer, illustrator and publisher cannot be covered in this paper.

Some general information is necessary covering the selection of pictures. A photograph sees all, and for documentation of skin lesions, postural pictures, etc., a photograph is far superior.

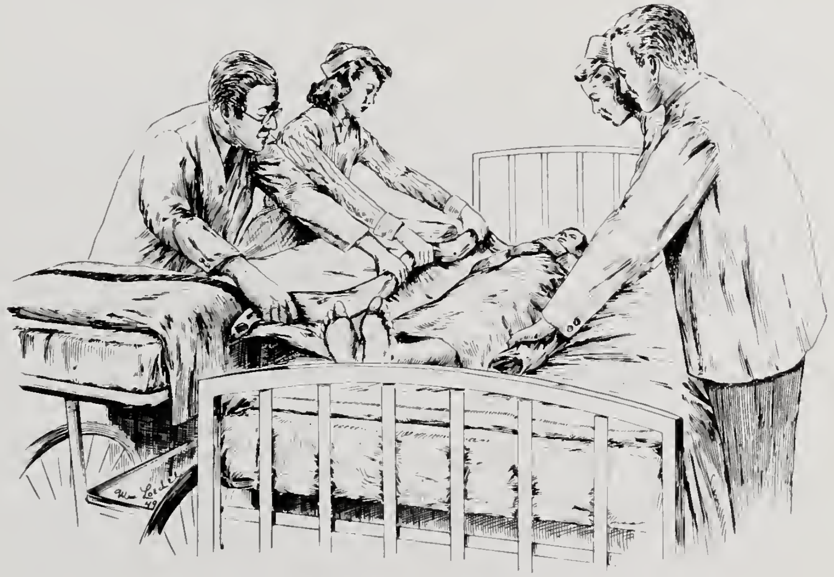
Seeing all, as does the camera, is often undesirable. Gross dissections of cadaver material or operating room procedures usually result in a multitude of unnecessary highlights, drapery, hands, etc. The camera cannot think or know how to superimpose two layers of related information succinctly in one picture. Also, the publishing of many photographs costs more and uses excessive space. For the greatest economy of method in the removal of excess "visual baggage" the illustrator's talents are invaluable.

Discussion

Dr. Morrell: The medical "artist" does not wear a beret, tilt his head first to one side then the other to see if his "creation" looks good, suffer from fits of temper, or "cut off his ear." In a field which is competitive, a maximum of hard work and skill with a modicum of artistic flair or talent produces the only lasting results.

The medical illustrator is a paramedical man. The illustrator with requisite experience and qualification will be a collaborator, in many cases deserving of co-authorship. He does not have the full perspective concerning a particular subject or he would have written the book. If his experience is long, however, he may have become a specialist in a particular field and may know much more about that subject than the person with general medical training.

Physicians are often prone to the conviction that medical knowledge has somehow been vouchsafed to them alone and cannot be possessed by others. This attitude is as dangerous as it is widespread. Frequent association and conference with a well-trained and experienced illustrator can be a humbling as well as a stimulating experience.



An example of clear and impressive drawing but one which is not completely accurate (note position of head of stretcher).

Only through such contact, and an awakening of the concept of mutual benefit, can the definition of the medical illustrator's place in medicine be established.

PRESIDENT'S PAGE

THE GRIEVANCE COMMITTEE

Last month I discussed the various aspects of professional conduct which influence our relations with the public, both on a personal basis and through the activities of the Medical Society. Perhaps no other activity of the Society offers more opportunity for improved rapport with the public than does the Grievance Committee. The very existence of this Committee is eloquent proof of the sincere effort which organized medicine is making to guarantee that the practice of medicine will be kept at a high ethical and professional level.

Let us look at the recent record of our Grievance Committee. In the first place, I should like to point out a fact which perhaps too few of us know: The great majority of complaints received in our Society are handled by the administrative staff and never reach the Grievance Committee. In the 12 months ending June 1960, 67 cases were brought to the Committee for its consideration, an average of less than 6 per month. In contrast to this figure, the members of the administrative staff who handle the calls of complaint estimate that they receive an average of 3 calls per day. Many of these calls come from patients who wish to get a gripe off their chest, but who, when offered the opportunity of presenting their case in writing to the Committee, refuse to do so because they are still under the care of the physician and do not wish to carry the matter any further. Many calls are from individuals who are patently unreasonable. Adroit handling of these calls by the staff results in satisfying the patient and thus reducing to a small number the cases which reach the Committee.

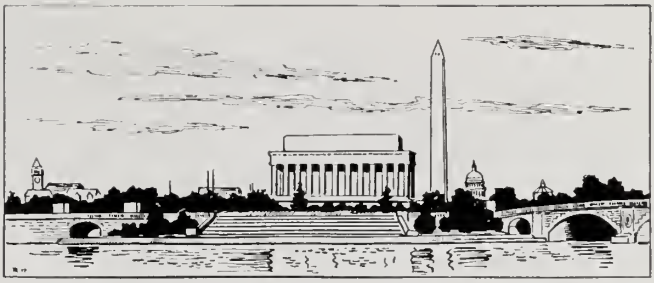
At least two-thirds of all complaints involve fees, either suspected overcharges, or charges for services for which a fee was not expected. Many complaints are from people whose delinquent accounts have been turned over to a collection agency. About one-third of the complaints refer to what the patient feels was improper handling of his case: sometimes inadequate studies or ineffective therapy, and sometimes a suspicion of the need for the extensive examination or tests which were done. There are complaints about an unclean office, a disrespectful secretary, and about the harsh, or insulting, or even crude language of a physician.

In the past year the Committee decided 35 cases in favor of the physician. In 6 cases the complaint was found to be justified and the physicians were so informed. There were 6 other cases referred to the Committee by the law enforcement agencies. Of these, 3 were for violations of the Harrison Narcotic Act, and the individuals concerned were subsequently suspended by the Executive Board. Two other members were suspended for unethical or dishonest practices.

A review of the files of the Committee points up the need on the part of every physician to see that his patient understands clearly what is being done and why; it is very important to explain the need for certain examinations, particularly in respect to extensive laboratory procedures. Without a doubt the greatest harm to the profession is done by the individual who charges exorbitant fees.

Unfortunately, a small group of repeaters burden the Committee with complaints received against them with distressing regularity. The men who serve on the Committee are to be com-

(*Continued on page 534*)



EDITORIALS

PREVENTION OF RETROLENTAL FIBROPLASIA

Retrolental fibroplasia was first described by Terry in 1942. During the next decade the etiology of this disease became the subject of many investigations, and few congenital or environmental factors associated with either mother or infant escaped consideration as possible causes. During that same 10-year period RLF became the greatest cause of blindness in children.

In 1951, 1952 and 1953 the published Nursery Studies of Campbell, Crosse and Patz all implicated oxygen as the cause of this dreaded eye disease after investigators in this field for the past dozen years had "been breaking their heads and cracking their shins in a vain effort to make a dent in this subject" (from discussion of Ashton).

Ashton observed in kittens that high concentrations of oxygen obliterated the retinal vessels and a secondary vaso-proliferation resulted. He attributed to this mechanism the majority of cases of retrolental fibroplasia, while those occasional cases which have not been subjected to oxygen therapy and the rare prenatal form of the disease may possibly be due to vascular aberrations consequent upon prolonged anoxia from fetal or maternal causes.

The oxygen saturation of arterial blood is approximately 50 per cent in utero, but after birth the arterial saturation rises in a few hours to approximately 90 per cent in room atmosphere. Patz suggested that abnormal capillary proliferation might theoretically develop from this relative increase in oxygen tension and could explain an occasional case of retrolental fibroplasia developing where no supplementary oxygen is administered. There are very rare instances in which RLF has developed in one twin and not in the other, both twins having approximately the same birth weight and similar postnatal environment. It seems difficult to explain such cases on either of the two theories cited above, but then again one of the most exciting and challenging aspects of medicine is that "there are no always or nevers."

In animals Patz found that the ocular lesions were proportional in severity to the duration and concentration of oxygen administered.

Following publication of the above findings pediatricians throughout the country began to take the facts into consideration in the management of newly born prematures. They found that the indications for oxygen administration were fewer than they had thought necessary in the recent past. Cyanosis and respiratory distress are held to be bona fide symptoms requiring oxygen therapy. In 1954 Reese stated that when oxygen is indicated, every effort should be made

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of the Medical Society of the District of Columbia

to keep the concentration in the incubator below 40 per cent and to discontinue treatment as soon as respiratory distress is relieved. In 1956 Kinsey said: "In view of the positive evidence indicating that even relatively short exposures to oxygen are associated with RLF, even though the concentration is kept below 40 per cent, and the paucity of evidence that there is any critical concentration below which RLF is markedly reduced in incidence, I believe that merely restricting the concentration of oxygen may result in unnecessary cases of RLF. Certainly, the emphasis should be placed on restricting the duration in oxygen to an absolute minimum consistent with the clinical indications of anoxia, irrespective of the concentration of oxygen administered." Kinsey's coöperative study showed that infants of multiple births had a much greater susceptibility to RLF than those of single birth.

Shortly after pediatricians began restricting the concentration and duration of oxygen to premature infants the incidence of RLF dropped precipitously, and what was once the number one cause of blindness in children is now a rarity.

However, recently, 7 to 9 years after the original published work on oxygen as a factor in the etiology of RLF, The National Society for the Prevention of Blindness has been receiving a number of inquiries regarding the relationship between oxygen therapy for premature infants and retrolental fibroplasia. Specifically, it has been asked when the knowledge that uncontrolled use of oxygen in the treatment of premature infants might result in retrolental fibroplasia became generally available to the profession and hospitals.

Those who fail to follow recommendations established by competent authority for prescribing oxygen for premature infants subject their patients to the risk of blindness.

I should like to stress the fact that the entire medical profession and all hospital administrators have a duty to institute and persistently follow procedures in the administration of oxygen to premature infants that will prevent retrolental fibroplasia. Letourneau summarized our duties and obligations very well when he said: "We must not allow premature infants to be exposed to high concentrations of oxygen routinely. Concentration in cases of emergency up to 40 per cent is allowable, but having prescribed, the physician has discharged his obligation. The rest is up to the hospital to administer the treatment as prescribed. . . . Despite the reading on the flow-meter, the oxygen may not be delivered as the doctor prescribed it. It must be checked by an adequate analyzer. . . . The hospital administrator must bear the responsibility for preventing retrolental fibroplasia no less than the physician and the scientist. We have a special part to play in preventing this dreadful disease, and each of us must make certain that he has used all the technical, scientific and professional knowledge available to him."

For those who are interested in pursuing the subject further, a list of some of the papers and editorials which have appeared since 1951 will be found in the chronological bibliography which follows.

M. NOEL STOW, M.D.

READING LIST IN CHRONOLOGICAL ORDER

TERRY, T. L.: Extreme prematurity and fibroblastic overgrowth of persistent vascular sheath behind each crystalline lens: I. Preliminary report. Am. J. Ophth., 1942, **25,** 203.

TERRY, T. L.: Fibroblastic overgrowth of persistent tunica vasculosa lentis in infants born prematurely: II. Report of cases—clinical aspects. Tr. Am. Ophth. Soc., 1942, **40,** 262; III. Studies in development and regression of hyaloid artery and tunica vasculosa lentis. Am. J. Ophth., 1942, **25,** 1409.

CAMPBELL, K.: Intensive oxygen therapy as a possible cause of retrolental fibroplasia: a clinical approach. M. J. Australia, 1951, **2,** 48.

CROSSE, V. M., AND EVANS, P. J.: Prevention of retrolental fibroplasia. A.M.A. Arch. Ophth., 1952, **48,** 83.

PATZ, A., HOECK, L. E., AND DE LA CRUZ, E.: Studies on the effect of high oxygen administration in retrolental fibroplasia: I. Nursery observations. Am. J. Ophth., 1952, **35,** 1248.

(*Continued on page 534*)

ON COMMITTING THE MENTALLY ILL

It will cost the District over 14 million dollars next year to provide psychiatric treatment for its share of the 7,500 patients at St. Elizabeths Hospital. The cost in loss of earning power and the cost in human suffering and waste remain incalculable.

Less well known is the high cost of hospitalizing a sick but uncoöperative patient under the existing laws. On page 519 of this issue appears an excellent summary of "Procedures for Adjudication in Noncriminal Mental Health Cases in the District of Columbia" by Arthur C. Katims, Esq. Although written in 1958 primarily for a legal audience, its language is so clear that it is being reprinted in this journal by special permission so that interested members of the Society will be able to file it for reference.

A quick perusal of this summary will indicate clearly the numerous safeguards the law provides for "due process" in the involuntary hospitalization of a person considered mentally ill. These safeguards are not only numerous but so cumbersome and costly as to interfere seriously with the prompt institution of proper treatment in many cases.

Engaging an attorney to file a petition in court and to follow the case through to adjudication may cost anywhere from $100 to $300. The psychiatrist's services, which include examining the patient, writing a report, and testifying before the Commission on Mental Health, may be from $100 to $150. Under the third method, the medical fees for 2 physicians to examine the patient, complete the certificates, and testify before the Commission may be from $150 to $200. In addition, the guardian *ad litem* appointed by the court since the Dooling Decision of 1957 is usually awarded $50 if the estate is solvent. Combined legal and medical fees may, therefore, run from $200 to $500 depending on which method of commitment is used.

It is to be stressed that the range cf fees is not here being questioned. In view of the many hours of experts' time and the responsibilities involved, the compensation seems modest enough. In actual practice many psychiatrists refuse to become involved in commitments regardless of the fee. What is being questioned is the necessity for continuing this expensive and cumbersome method of committing the mentally ill.

Two rays of hope are visible over a murky horizon. The first, and perhaps most promising, lies in the increasing trend of patients and their families to use the method of voluntary hospitalization whenever possible. This method, which has been available in the District since 1948, is cost-free and simple. At present between 10 and 12 per cent of the patients at St. Elizabeths Hospital are there on a voluntary basis. This is encouraging; but it is not enough. In England many of the public mental hospitals have 80 to 100 per cent of their patients on a voluntary or nonstatutory basis. The recent advances in psychiatric treatment and the high standards of patient care at St. Elizabeths should move all physicians and lawyers to encourage the ever wider use of voluntary admissions whenever appropriate.

The second ray of hope emanates from the combined efforts of the Committees on Mental Health of the Bar Association of the District of Columbia and this Society. For the past several years much work has been done to simplify the existing procedures, and each year we come closer to our goal, namely, the enactment of legislation which will make it easier (and less costly) for patients to receive needed psychiatric treatment and still safeguard their constitutional rights. Much effort must be expended to inform both physicians and lawyers as to the basic facts involved and to remove numerous misconceptions which still exist in the complex field of psychiatry and the law. This makes for slow and tedious progress, but the great interest and good will of our opposite numbers in the legal profession give promise that our joint efforts may soon be rewarded with success.

Zigmond M. Lebensohn, M.D.
Chairman, Committee on Mental Health

LAUGHTER—A PROPHYLACTIC AND A THERAPEUTIC

The recent publication of "I Prescribe Laughter" by Dr. Thomas R. Rees (Vantage Press) not only provides the reader numerous chuckles but raises the question about the therapeutic value of laughter itself. Are we prescribing tranquilizers when as physicians we should be providing laughter or influencing the state of mind with something other than pills?

Since recorded time good healthy laughter has been associated with good digestion and, in short, good health. "A merry heart doeth good like a medicine" (Proverbs 17:22). To be able to laugh with others and not at them, to be able to indulge vicariously in a humorous situation, to get pleasure from an anecdote, to laugh at one's self—these constitute autogenous doses of soothing-syrup that relax and warm the body all over. Although well-documented research in the physiology of laughter is scant, one may feel sure that the end result of a jovial mood is favorable.

Bennett Cerf said, "For me a hearty 'belly laugh' is the most beautiful sound in the world." More recently our esteemed columnist, Dr. J. Earl Kadan, elaborated on the desirability of "one little old belly-chuckle" in his "On the Lighter Side" (Medical Annals, June 1960). There has been a procession of wits, philosophers, and humorists, all thriving on their ability to sell humor to an eager public. During the era of Will Rogers, patients were said to tear up their medical prescriptions and spend the money for an evening of his good humor and easy-to-take philosophy, finding it unnecessary to return to their doctor, and thus giving some validity to Irvin S. Cobb's byword, "A laugh a day keeps the doctor away."

We all know physicians who manage to get a chuckle from a preoperative patient or make him see something humorous in a case of ivy poisoning. This is good medicine and deserves greater consideration as a very desirable synergist, if not a substitute for pills and placebos.

Give your patient a story to crack the tough crust of reality. Give him a chuckle, if you can, to relieve the anxieties, tensions, and apprehensions which so often overwhelm him. Give the patient a pun to stimulate a merry mood, and invariably the capsules and the elixirs will be much more effective.

Certainly laughter is not a panacea for the ills of man. The processes of living are a serious business, but the ability to stimulate a good old-fashioned "belly-laugh," or even a smile, is indeed good medical practice.

Dr. Rees makes the point very well on the back flap of his book: "Gladness of the heart is the life of man; and the joyfulness of man prolongeth his days." (Ecclesiasticus 30:22)

Leland E. Stevenson, M.D.

Editor's note: In submitting this editorial Dr. Stevenson commented anent the book: "It is the most read item in my reception room. One patient, after spending 15 minutes with 'I Prescribe Laughter,' admitted he was entirely relieved of his abdominal pain by the time he got to me. This may be bad business but good medicine."

THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

IN & OUT OF FOCUS

By the Observer

The AMA and Blue Shield As many members know, the AMA's House of Delegates did not approve the resolution introduced by the Medical Society's delegates at Miami Beach last June which would direct the Board of Trustees to develop a "concrete and positive medical care plan" for persons over 65 years of age and to prepare definite proposals for providing medical and hospital care for the entire population. Nevertheless, the resolution stirred up considerable informal discussion among the delegates, most of which was favorable. What critical comments there were, were leveled at the first two whereases reading:

> "WHEREAS: This House of Delegates at its December, 1945 session voted to instruct the Board of Trustees and the Council on Medical Service and Public Relations 'to proceed as promptly as possible with the development of a specific national health program with emphasis on the Nation-wide organization of locally administered prepayment medical plans sponsored by Medical Societies'[1]; and
>
> "WHEREAS: These instructions have not been carried out;. . . "*

In reporting to the House, the reference committee to which the resolution was referred stated it was the consensus of the committee that the Association "actually did follow the instructions of the House in 1945." Emphasis was placed on the efforts made by the AMA's Council on Medical Service to stimulate the organization of plans by medical societies throughout the country and its role in the establishment of Blue Shield.

The spectacular growth of voluntary health insurance since the early 40's is one of the phenomena of our time. The record shows that although the AMA opposed health insurance of any kind in the early 1930's, the organization had a change of heart in the 1940's. Thereafter, through its Council on Medical Service, which was established in 1943 "to serve as a clearing house for information about the plans, to study and suggest means for distribution of medical care to the public consistent with the principles adopted by the AMA, and to assist the state and county associations in their medical service activities," it vigorously supported the voluntary insurance movement. The Council encouraged medical societies to organize prepayment plans and to set up standards, compliance with which entitled them to the AMA's "Seal of Acceptance."

In February 1946 the Council and representatives of 9 medical care plans met and organized the Associated Medical Care Plans (later to become Blue Shield). A month thereafter AMCP was incorporated as a separate nonprofit corporation actively endorsed by the AMA.

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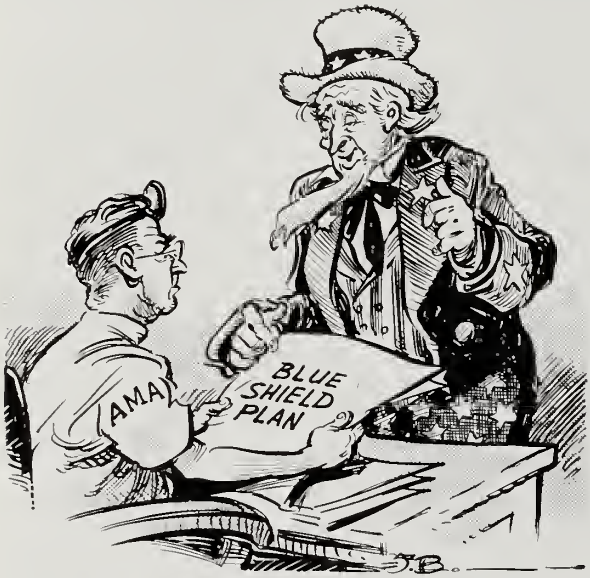
[1] J.A.M.A., 1945, **129**, 1194, 1209.

* Editor's note: Although the 1945 resolution was written by a reference committee of the House of Delegates, the resolved portion was taken verbatim from a resolution introduced by the delegates from the District of Columbia at the direction of the Society.

At the Association's annual meeting in June 1946, the House of Delegates adopted Standards of Acceptance of Medical Care Plans. In introducing the Standards, the following statement was made: "A prepayment plan may be underwritten either by voluntary prepayment organizations . . . or by duly licensed private insurance companies, or by both."



"*Cut me in. I'm not worried about the cost.*"

Later in the same year 3 members of the AMA's Council on Medical Service were elected Commissioners of AMCP.

Subsequently, it was voted by the Executive Committee of the Commission of AMCP that it would answer directly to the Council on Medical Service of the AMA.

It was at this point that the relationship of AMCP to the Association was the closest. Space does not permit reviewing in detail the many activities and decisions of the two bodies in the following 3 years, nor would it hold too great interest for the reader; however, in 1949 the House of Delegates accepted a report of the Council on Medical Service calling for "complete and absolute separation of AMCP from the AMA." Since then the relationship between what is now Blue Shield and the AMA has run hot and cold.

Apparently the Association has been loath to incur the displeasure of the insurance industry, feeling the need of its support in its legislative battles. This has troubled Blue Shield leaders, who feel that, after all, their organization is a creation of the AMA and, in their opinion, the primary deterrent to a Government system of medical care. Far from desiring to eliminate commercial insurance companies from a field in which they are Johnny-come-lately's, they feel that competition from this source is healthy.

They point to the need for vigorous AMA leadership to strengthen Blue Shield and, if possible, to dispose once and for all of the indemnity versus service controversy. It is the latter which is most serious and unless amicably settled may prove the undoing of the Blue Shield Plans.

There are ample opportunities, they agree, for Blue Shield and commercial companies to flourish in their respective fields. The latter naturally function in the indemnity area. Blue Shield Plans, in the view of a majority of their leaders and a number of medical organizations, including the District Medical Society, should confine themselves to programs based on service benefits. If the Plans could agree upon this, it is their belief that prospects for future success would be greatly enhanced.

Fee schedules have never been popular with physicians, but Blue Shield leaders and many other physicians in their franker moments agree that their widespread adoption is inevitable. They tread more lightly in discussing income levels, although they intimate also that they are on the way out.

Who can view the developments in recent years in the medical care field, they ask, without coming to the conclusion that the Government, having invaded the field of private practice, will expand its efforts? Witness the establishment of Medicare, followed more recently by the Federal Employees Health Benefits Program. In the offing is a medical care program for the aged in which Government will surely participate.

So far the Blue Shield and commercial insurance companies have fared well in the face of these developments, but this is only the beginning. They both need the AMA's support, but Blue Shield Plans, being medical society-sponsored and largely the offspring of organized medicine, should have first claim on the Association.

★

Medical Care for the Aged

Although there is a possibility that legislation providing medical care for the aged will have been enacted at the special session of Congress held in August, the subject should still be of more than academic interest. The probability is that Congress will not have taken action and that at the next session political parties will endeavor to implement their respective planks.

For the information of physicians who are not familiar with these planks they are as follows.

> DEMOCRATIC: "*Medical Care for Older Persons.* Sixty million Americans—more than a third of our people—have no insurance protection against the high cost of illness. For the rest, private health insurance pays, on the average, only about one-third of the cost of medical care.
>
> "The problem is particularly acute among the 16 million Americans over 65 years old, disabled workers, widows and orphans.
>
> "Most of these have low incomes and the elderly among them suffer two to three times as much illness as the rest of the population.
>
> "The Republican administration refused to acknowledge any national responsibility for health care for elder citizens until forced to do so by an increasingly outraged demand. Then, their belated proposal was a cynical sham built around a degrading test based on means or income—a 'pauper's oath.'
>
> "The most practicable way to provide health protection for older people is to use the contributory machinery of the Social Security system for insurance covering hospital bills and other high cost medical services. For those relatively few of our older people who have never been eligible for Social Security coverage, we shall provide corresponding benefits by appropriations from the general revenue."

> REPUBLICAN: "*Health Aid.* Development of a health program that will provide the aged needing it, on a sound fiscal basis and through a contributory system, protection against burdensome costs of health care. Such a program should:
>
> "Provide the beneficiaries with the option of purchasing private health insurance—a vital distinction between our approach and Democratic proposals in that it would encourage commercial carriers and voluntary insurance organizations to continue their efforts to develop sound coverage plans for the senior population.
>
> "Protect the personal relationship of patient and physician.
>
> "Include state participation.
>
> "For the needs which individuals of all age groups cannot meet by themselves, we propose:
>
> "Removing the arbitary 50-year age requirement under the disability insurance program while amending the law also to provide incentives for rehabilitated persons to return to useful work.
>
> "A single, Federal assistance grant to each state for aid to needy persons rather than dividing such grants into specific categories.
>
> "A strengthened Federal-state program to rehabilitate the estimated 200,000 persons who annually could become independent after proper medical services and occupational training.
>
> "A new Federal-state program, for handicapped persons completely dependent on others, to help them meet their needs for personal care."

There will be powerful voices raised in favor of the Democratic proposals. Aside from candidates, and labor leaders, there are a number of columnists who espouse the party's cause. The able Walter Lippmann is undoubtedly the most outspoken and influential. In a recent column he stated:

> "For reasons which he has never explained, the President regards compulsory Social Security taxes as unsound, socialistic, and rather un-American; on the other hand, he regards compulsory taxes to pay for doles based

on a means test as somehow more 'voluntary,' sounder, more worthy of a free society and more American."

* * * * *

"Why does the President feel so strongly opposed to the principle of compulsory insurance for medical care to supplement the insurance, which already exists, for old age? What is wrong about its being compulsory that a man should insure himself against the needs of his old age?"

Commenting upon President Eisenhower's support of voluntary plans, Mr. Lippmann writes:

"What is so wonderful about a voluntary system under which a man who doesn't save for his old age has to have his doctors and his hospital bills paid for by his children or public welfare funds? There is nothing un-American in the principle that the imprudent shall be compelled to save so that they do not become a burden to their families and the local charities, so that they can meet the needs of their old age with the self-respect which comes from being entitled to the benefits because they have paid the cost out of their own earnings."

He then takes a fling at the AMA:

"In this connection it is interesting to remember that in the early 1930's when voluntary health insurance plans were inaugurated, our old friend, the American Medical Association, was declaring that they were communism and socialism and socialized medicine. Today, the American Medical Association is pointing to these same voluntary insurance plans as the solution of our present needs and the proper alternative to compulsory old age medical care insurance."

Speaking in support of the plank in the Republican platform, both President Eisenhower and Presidential Candidate Nixon have vigorously voiced their opposition to Forand-type legislation and support of the position taken by their party at the Chicago convention.

Among the outstanding columnists who differ with Mr. Lippmann is Dorothy Thompson. She writes in the *Ladies' Home Journal:*

"The Democrat-sponsored bills [Forand-type legislation providing medical care for the aging] are backed and have been nationally publicized for months by the most powerful pressure groups in and out of Washington —the CIO-AFL and the Americans for Democratic Action.

"For these organizations, whatever Federal health legislation is introduced will be only an entering wedge. Their goal is socialized medicine, on the model of many European countries. Whatever one argues for or against this, one thing can safely be predicted. The cost of modified Federal health insurance for the old cannot be accurately computed. Insurance experts and the experience of all countries with which I am familiar testify that costs will not be covered by the fraction of the per cent to be added to payroll taxes. Everywhere people tend to abuse services falsely described as 'free.'

"Whatever Federal old-age health insurance is offered will not be available to some 3,000,000 adult persons who are not covered by Social Security or any other Government retirement scheme.

"It will furnish no service to elderly people in a mental or tuberculosis hospital.

"It will probably furnish no services from physician or nurse performed in one's own home or place of residence.

"It will not be related to need.

"It will predictably overcrowd hospitals and nursing homes, both of which are the most expensive places in which to be ill, no matter who pays the bills.

"It will be a blow to insurance companies in which many thousands of old people have equities.

"In short, it will create new problems and leave many basic ones unsolved.

* * * * *

"The actual economic status of people over 65 has just never been satisfactorily broken down. If it is true that a considerable percentage are poor in relation to other age groups, it is just as true that they form a very high percentage of the richest people in the country. Where wealth is not inherited, individuals who amass fortunes usually begin to do so around the age of 50, and thereafter the fortune, if wisely invested, grows by itself.

"Compulsory government health-insurance plans may be excellent for low-wage-and-salary countries where government services supplement otherwise very inadequate family incomes.

"It does not follow that they are the best means for dealing with this social problem in the nation with the highest per capita income and one which, on average, is keeping well in advance of the cost of living—to the rise of which Government spending is the chief contributory.

"It may be that we are drifting with almost the inevitability of a law into an all-embracing welfare state, ever more centralized, where the anonymous bureaucrat governs all, with more and more responsibilities removed from the states, communities and free institutions, in this vast and so diverse nation.

"If so, we shall be moving farther and farther from the American way and into a modern form of feudal society."

As Chairman of the Board of Trustees of the AMA and now President-elect, Dr. Leonard W. Larson has made many appearances "on the Hill" in opposition to the Forand Bill. Although the Association is becoming less rigid in its opposition to some form of health legislation for the aged, it is still against any scheme involving contributions to the Social Security System. In his last appearance before the Senate Finance Committee on June 30, 1960, Dr. Larson stated the AMA's objections as follows:

"The Social Security approach would cover millions of people who are financing their own health care costs adequately at the present time. Whether they need it or not, whether they want it or not, the Federal Government would cover them, and compel 70 million workers and their employers to pay the bill.

"Under such a system, the Federal Government would undertake to provide a service purchased from outside sources. Instead of cash benefits, it proposes service benefits irrespective of need. This is a dangerous precedent, Mr. Chairman, which hardly squares with the original purpose of the Social Security Act.

"An approach of this sort would allow the Federal Government to control disbursement of funds; to decide the benefits to be provided; to set rates of compensation for hospitals, nursing homes, dentists, and physicians; to audit and control government expenditures to hospitals, nursing homes, and patients; and to establish and enforce standards of hospital and medical care. Indeed, if the Federal Government adopted such a measure, it would be compelled to exercise these controls in order to safeguard the taxpayers' money.

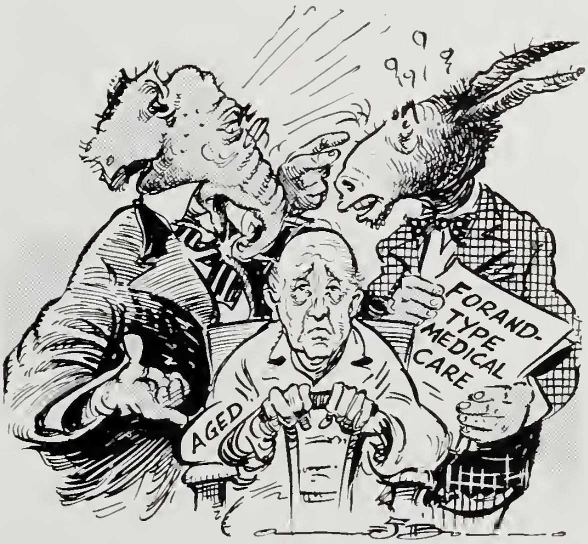
"Could the Federal Government assume these responsibilities—fiscal and otherwise—without influencing the quality of medical care which it dispensed? The answer is clear: It could not.

"All of these measures disclaim their intention of meddling with the free practice of medicine. But if a single government agency were empowered to buy perhaps 10 to 20 per cent of all care in the Nation's general hospitals, it takes no crystal ball to predict that this agency would wield great power to influence the operation and management of hospitals.

"It would be well nigh impossible under such a program to avoid a situation in which government employees would be telling doctors what drugs and treatment they could provide; telling hospital administrators how to run their hospitals; telling the nursing homes what they could and could not do.

"Passage of such a measure would mean overcrowding in our hospitals, which are already hard-pressed to meet the demands for care of our rapidly growing population. The overuse of hospitals is predictable, which is borne out in other nations that have experimented with national compulsory health insurance. It is human nature for people to seek to collect a benefit for which they have already paid, or for which somebody else is paying.

"As physicians, we believe that patients should be hospitalized or institutionalized only when necessary, and that the length of their stay, as well as the treatment they are given, should be governed by their medical condition. The arbitrary limitations imposed by law or the regulations of an administrative agency are not acceptable substitutes for this medical determination.



"I'm for GIVE AID . . . NOT . . . GIVE—AWAY!"

"The costs of such a proposal are almost impossible to predict. But it is safe to say that they would be staggering. Social Security taxes are already scheduled to increase sharply in the years ahead. To increase them further might well jeopardize the entire Social Security structure through public rebellion.

* * * * *

"The passage of such a measure would, therefore, open the way for national compulsory health insurance to cover every man, woman, and child in the country.

"To substitute a compulsory system of health insurance for a voluntary system that has proved its ability to do the job would result in the decline, if not the demise, of private health insurance. Those compelled by law to carry the cost of national compulsory health insurance would neither be able nor anxious to carry private health policies as well."

★

Emergencies and Deadlines

Physicians critical of the press for inaccurate and sometimes weird descriptions of injuries to their patients should remember, says William H. Richardson, State Editor for the Associated Press in Albuquerque, New Mexico, that "newspapermen work under iron deadlines."

In an article captioned, "Newspapermen, Too, Are God's Creatures!" appearing in the *Rocky Mountain Medical Journal* for April 1960, he states:

> "If they don't have an official description of a patient's injuries or condition when deadline time arrives, they'll 'put the paper to bed' with the best they can get. This frequently results in the publication of misinformation from sources medically untrained— ambulance drivers, policemen or voluble bystanders. No newsman worth the powder it would take to blow him up likes it that way. They'd much rather take the briefest authoritative medical description of an injured person's condition than any amount of detailed (and usually inaccurate) information from someone else. Unfortunately, there is sometimes little choice."

In an effort to obtain reliable information, reporters frequently run into a "blank wall of silence and 'no comments' which cause some newspapermen to heartily damn the doctors, one and all.

"The more prominent the patient or the more illegal or controversial the nature of the injury," Mr. Richardson states, "the higher the wall that surrounds any accurate information."

Keeping the presses from rolling even one minute means "holding up (and paying) scores of reporters, linotype operators, printers, stereotypers, pressmen, mailroom men and delivery boys." There are also the train, plane, and bus schedules to make for delivery throughout the area. In other words, meeting deadlines is of imperative necessity for newspapers.

Mr. Richardson observes that frequently failure to communicate satisfactorily with the press in regard to injured patients is due to "ignorance of the hospital attendants as to what a doctor wants released." The consequence is that reporters must often rely on ambulance drivers and police officers for information. As a result, items like the following appear:

"Oklahoma City (AP)—Dr. Joe Jones, 64, of Roswell was injured today in a headon collision on the Tulsa Turnpike. The Oklahoma Highway Patrol described Jones' condition as critical. He was admitted to Mercy Hospital for surgery."

> "Unless the patient is unusually prominent," Mr. Richardson continues, "no doctor or hospital will be asked for a detailed medical diagnosis. There should, however, be a set of terms for which all hands agree on the meaning. Some hospitals and a few physicians will call a patient in 'good' condition when the poor devil can't live through the night, and everyone concerned knows it. The explanation I have been given in cases like this goes something like, 'Yes, he's not expected to live, but considering the extent of his injuries, his pulse and respiration are surprisingly good.' This type of handling leads only to misinformation and a resulting shock to the public when, sure enough, the patient dies."

Upon reading Mr. Richardson's article, it occurred to your Observer to call reporters on Washington newspapers and hospital administrators with whom he is acquainted for their views. One reporter assured him that, generally speaking, the situation described by Mr. Richardson did not exist in Washington. On one or two occasions he had encountered difficulty in locating a spokesman for an institution, but this was the exception rather than the rule. Hospitals, he said, have problems for which allowances must be made, for example, the unavailability of the doctor to approve the release of information or his reluctance for valid reasons to do so. Nevertheless, he said, deadlines had to be met and he thought some hospitals could coöperate much more effectively with the press if they had one person assigned to relay information to newspapers.

Another said he had no complaint whatsoever; that he had always obtained the information requested. On occasion, he said, reporters or members of the hospital staff were upset or in a bad mood, making things difficult for all concerned.

Three administrators of hospitals with whom your Observer talked agreed that the relationship between the press and hospitals in the District of Columbia generally was excellent. They had few complaints and these were of a minor nature.

It would seem then that, unless the individuals with whom your Observer talked were looking at the situation through rose-colored glasses or were reluctant to discuss differences which have occurred, there are no real problems in this area in Washington.

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An Educated Vending Machine?

As Donald A. Starr of the Tucson Clinic, Tucson, Arizona, sees it, "The firing of Sputnik has turned our view of the future into a Jules Verne fantasy. The years ahead have suddenly become charged with remarkable expectations. Rocketing off to a weekend on the moon, moving mountains and seas with the power of the atom; such onetime dreams seem not only possible but now virtually assured.

"We may be forgiven, then, if we think of the future of [private] medical clinics, or of any other feature of our world today, largely in terms of scientific and mechanical wonders. It is in keeping with our times to conceive of the ultimate clinic as an educated vending machine, dispensing an assortment of injections and pills and able to cope definitively with all of man's infirmities in return for a few coins."*

However, Mr. Starr hastens to state that "this ultimate may be long in coming." He continues:

"Even the gigantic strides made in medicine and pharmacology since World War II have not completely revolutionized the day-to-day practice of medicine. Limited victory over certain acute illnesses has shifted the focus of public and professional attention in the direction of chronic degenerative diseases. If the average man is healthier, he seeks more medical attention than before in order to stay that way. In the light of this recent experience science cannot be expected to soon supply a substitute for the frequent personal attention of the physician that is the framework of today's method of providing medical care.

"If the group practice of medicine is not to be readily transformed by advancement in medical science, perhaps it is more vulnerable to the opportunities for change being offered by engineering: 'automation,' 'computor,' 'transistor,' 'tape,' 'punch card,' 'electronic,' 'programming.' All are potent words today, evoking the image of mechanical revolution in business operations."

Pointing to the fact that group practice has enjoyed "increasing professional and public acceptance," he observes that "growth tends to prompt automation." As a result, "to those involved in management, it means inevitable loss of personal contact with many of the aspects of operation for which they have had some personal responsibility. It means placing increasing faith in the judgment of others and, in some matters, the substitution of standards in place of personal judgment. . . . The people whom we serve and with whom we work tend to become abstractions to us and we to them. Perhaps this phenomenon constitutes one of the greatest personal challenges of our future."

Turning to other facets of the relationships between clinics and the people they serve, Mr. Starr observes:

"Individuals are less inclined to accept economic and personal risks than formerly (except on the highways!) and perhaps less able, in a more complex world, to survive the unexpected. For whatever reason, we are seeking ever-greater personal security and one facet of this search is forcing rapid and often uncomfortable changes on the practice of medicine. . . .

"From a point of insignificance 20 years ago, medical and surgical insurance plans have grown to a point where they now help pay the doctor bills of more than 100 million persons in our country. Within 10 years we can estimate conservatively that one-half of all physicians' services will be paid for by this means. Only the most hardy individualist would dare to guess that any appreciable number of patients will be paying their own medical bills on a fee-for-service basis in 1980.

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* This excerpt and those following appeared in an article by Mr. Starr entitled, "The Clinic of the Future" in the April 1960 issue of *Group Practice*, the official publication of the American Association of Medical Clinics.

"... In anticipating and insuring medical expenses we have created agencies to administer medical care funds in an organized and equitable manner. These 'third parties' have acquired authority and responsibility of their own in acting as the financial pathway between patient and doctor. They are sometimes seen as a complication to the delicate relationship of physician and patient.

"Certainly health insurance has made a distinctive mark on clinic administration. The orderly and expeditious processing of insurance claim forms has become a major problem of clinic logistics. Whatever relief we might anticipate from the standardization of these forms is tempered by the knowledge that insurance coverage can only continue to grow in volume and variety."

As regards compensation for professional services, Mr. Starr states:

> "Medical fee structures are bound to become more standardized, too, as third-party payment grows. There can be no certainty of protection for the purchaser of health insurance unless there is reasonable stability in the cost of the services covered. Fees established by negotiated schedules are a natural outgrowth of the search for security in personal medical finances."

Mr. Starr is not sanguine about the probable inroads of Government in the practice of medicine:

> "Less predictable than other factors is the role that Government will play in the growth of third-party payments. Certainly no one expects a diminution in the Government's present interest in the business side of medicine and it is with no little apprehension that we peer down this dark corridor. Not only does the increasing involvement of Government unpleasantly restrict customary freedoms of enterprise, it subjects us to abrupt and arbitrary adjustments in our methods of operation."

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Editor Fishbein

Among the pleasant recollections which your Observer has of his long association with the medical profession are Dr. Morris Fishbein's dissertations on medical writing. They were not only instructive but well seasoned with keen observations and humor.

Even the severest critics of Dr. Fishbein's views on current medical issues will agree that as a medical editor he has few peers. He demonstrated this when he was Editor of *The Journal of the American Medical Association.* Under his guidance, the *Journal* became the world's outstanding medical journal. His association with this publication has long since been terminated, but he still edits a number of outstanding medical journals. One can be certain that as long as Dr. Fishbein is able to wield his incisive and eloquent pen he will continue to do so.

Those who are interested in the craftsmanship of this able editor should read his brief article, "How I Edit Medical Manuscripts," which appears in the July 1960 number of the *International Record of Medicine.* It contains valuable hints not only for the tyro but for the experienced writer. For example, he offers this advice:

> "The opening sentences of a manuscript should, like the opening sentence of a speech or an address, capture the audience. For this reason, in most instances I am called upon to eliminate an opening paragraph or even 2 opening paragraphs that the author himself has written. Frequently he finds difficulty getting into his subject. Since it is the subject primarily that interests the reader and not the various reasons why the author decided to write on that subject, the paper properly begins with the immediate discussion of the basic material.
>
> "The time has long since passed when an author needs to review the entire literature of any medical subject in contributing a manuscript to a periodical. In fact, few periodicals indeed have space for such complete reviews of the history of any medical subject. No doubt even the historical journals prefer discussion of only limited phases of a subject rather than an entire review.
>
> "The opening paragraphs of many manuscripts are like the opening words of many sentences. They constitute a running start. The author is not sure just when he wants to take off, so he fills the intervening space by verbiage and comes finally to the take-off."

He expresses strong distaste for excess verbiage as follows:

> "I have just finished editing a manuscript on diarrhea. The author began: 'Diarrhea is a common complaint of

both ancient and modern man and is a complicating factor in many conditions dealt with by practicing physicians.' I changed this sentence to read: 'Diarrhea is a symptom, not a disease.'

"The author continued: 'In any discussion of diarrhea it is necessary to emphasize that the condition is not diagnostic of any disorder.' This I changed to read: 'Diarrhea is not diagnostic of any disorder.' "

Dr. Fishbein also has an aversion for what he calls "running starts." The following are examples:

" 'It should be emphasized that. . .' 'It has long been recognized that. . .' 'In studying. . .' 'It has been suggested. . .' 'It should be noted that. . .' 'It has been concluded that. . .' 'It appears that. . .' "

He dislikes too frequent use of "it is" and "there is" at the beginning of sentences, medical jargon, and too long sentences.

As much as they respect his ability, not all editors agree with Dr. Fishbein's aversions. However, none of them will disagree with his premise that manuscript editors should be "well-trained students of English composition with a knowledge of grammar, spelling, punctuation, and similar technical details."

T. W.

REGULATIONS FOR REGISTERING ALL RADIATION INSTALLATIONS

The following regulations requiring registration of sources of ionizing radiation from radioisotopes or high voltage equipment (Title 8, Chapter 4, Part 10, Health Regs.) were adopted by the District of Columbia Department of Public Health, to be in full force and effect on and after September 1, 1960.

"8-4.1001 DEFINITIONS*

"8-4.1002 REGISTRATION OF INSTALLATIONS

(a) *Initial registration.* The owner or person [an individual, or a corporation, partnership, or association] in charge of an installation† established before October 1, 1960, shall, not later than October 1, 1960, register with the Director [of Public Health of the District of Columbia, or his designated agent] and the owner or person in charge of an installation established on or after October 1, 1960, shall, within 30 days after the establishment thereof, register with the Director. Registration shall be on forms furnished by the Director and shall include the following information: 1. name, address, and telephone number of the owner and also of the person in charge; 2. the address and specific confines of each installation, or, if an installation is a mobile unit, the locations where such unit is used and the address and specific confines where such unit is usually stored; 3. the types of radiation sources‡ which are within or expected to be within each installation; 4. a listing of the types of radiation sources expected to be within each installation at any one time and an estimate in curies or fraction thereof of the total of such radiation sources other than devices and the maximum top current of each device capable of emitting ionizing radiation§; and 5. such other information reasonably related to the establishment, operation, and effect of an installation as the Director may from time to time require.

(b) *Reregistration and notice.* A change in the ownership or address of an installation shall terminate its registration, and such installation shall be reregistered by the owner or person in charge within 30 days after said termination. Whenever any change occurs within an installation affecting a radiation source to the extent that the information registered with the Director pursuant to item 4 of subsection (a) above is rendered inaccurate, the owner or person in charge of such installation shall, within 30 days, notify the Director in writing of such change. Whenever the person in charge of an installation ceases to be so in charge, the owner or person thereafter in charge of such installation shall, within 30 days, notify the Director in writing of such fact together with the name of the person thereafter in charge, if any.

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* The definitions as used in this chapter have been inserted in brackets in paragraph (a) below and as footnotes.

† *Installation* means a place, fixed or mobile, where radiation sources are produced, used, operated, kept, or stored.

‡ *Radiation source* means a device which emits ionizing radiation, or a solid, liquid, or gas which spontaneously emits ionizing radiation.

§ *Ionizing radiation* means all radiation which, in its passage through matter, is capable of producing ions directly or indirectly, including, but not limited to, electromagnetic radiations, such as X-rays and gamma rays, and particulate radiations, such as alpha particles, beta particles, electrons, protons, and neutrons.

"8-4.1003 ADDITIONAL REQUIREMENTS

The registration requirements of 8-4.1002 shall apply to all installations requiring licensing by the Atomic Energy Commission for the production, storage, or use of ionizing radiation sources or materials, notwithstanding any other provision of this chapter.

"8-4.1004 INDEPENDENCE OF SECTIONS

Each section of this chapter, and every part of each section, is hereby declared independent of every other, and the holding of any section, or part thereof, to be void or ineffective for any cause shall not be deemed to affect any other section, or part thereof.

"8-4.1005 PENALTY

Any person who violates any of the provisions of this chapter shall, upon conviction, be punished by a fine of not more than $300.00."

REPORT OF THE DELEGATES TO THE AMA HOUSE OF DELEGATES

Inasmuch as a very complete summary of the proceedings of the meeting of the House of Delegates of the American Medical Association at Miami Beach, Florida, June 13-17, 1960, has already appeared in the June 27 issue of *The AMA News*, and as a detailed report of the actions of the House will be published in the J.A.M.A. in the near future, your delegates will confine their report to the fate of the resolution entitled "National Medical Care Program" introduced by them at your direction together with mention of a few other items of particular interest.

The resolution authorized by the Society proposed that the Board of Trustees of the AMA be directed (A) to prepare a medical care plan for that segment of the population 65 years of age or over, and (B) to prepare definite proposals which could eventually be used as a pattern in providing medical and hospital care for the entire population. Your delegates appeared before the Reference Committee on Insurance and Medical Service in support of the resolution. They were assisted by Dr. Victor R. Alfaro, President, Dr. Donald Stubbs, President-elect, and Dr. Karl C. Corley, alternate delegate, who attended the sessions of the House and hearings of the Committee for the purpose of giving such help as they could to our cause. The Reference Committee reported to the House that the development of the National Association of Blue Shield Plans through AMA assistance did represent in effect support of medical care on a national level, that the program for those over 65 recently developed by the Board of Trustees was a concrete and positive medical care plan in keeping with the ideals of the Association, and that the Committee believed that no single plan could be developed for the entire population. It therefore recommended that the House of Delegates take no action on the resolution, and that was the final decision.

Your delegates did not and do not agree with the Reference Committee. However, they were of the opinion that the floor of the House was not the place to belabor this point and would prefer to introduce a similar resolution at the next meeting of the House if that is the wish of the Society. While no action was taken on the resolution as introduced, it caused a great deal of discussion and was very favorably received by delegates from many states, so that your delegates believe that the effort was not entirely wasted.

In regard to health care for the aged, the House approved the general concepts contained in the Supplementary Report of the Board of Trustees and then adopted the following statement as official policy of the American Medical Association:

"Personal medical care is primarily the responsibility of the individual. When he is unable to provide this care for himself, the responsibility should properly pass to his family, the community, the county, the state, and only when all these fail, to the Federal Government, and then only in conjunction with the other levels of government, in the above order. The determination of medical need should be made by a physician and the determination of eligibility should be made at the local level with local administration and control. The principle of freedom of choice should be preserved. The use of tax funds under the above conditions to pay for such care, whether through the purchase of health insurance or by direct payment, provided local option is assured, is inherent in this concept and is not inconsistent with previous actions of the House of Delegates of the American Medical Association."

The House also urged the Board of Trustees "to initiate a nonpartisan open assembly to which all interested representative groups are invited for the purpose of developing the specifics of a sound approach to the health service and facilities needed by the aged, and that thereafter the American Medical Association present its findings and positive principles to the people."

In connection with an educational program regarding the aged, the House declared that "the American Medical Association increase its educational program regarding employment of those over 65, emphasizing voluntary, gradual and individualized retirement, thereby giving these individuals not only the right to work but the right to live in a free society with dignity and pride."

The House reaffirmed its support of the "Blue Shield concept" in voluntary health insurance and approved specific recommendations concerning the AMA-Blue Shield relationships.

The Board of Trustees was directed to proceed with a study of the cost of medical care. This is to be an exhaustive study which will accurately develop the costs of each part of the overall care of patients and should be very valuable in future planning.

The Board was further directed to initiate a study of the present policy regarding the required content and method of preparing hospital records. This is to be approached with the idea of simplification.

At the Clinical Session in November 1960, the Board of Trustees will present programs covering group annuity and group disability insurance. It is probable that these can be developed on very favorable terms for all members.

Recruitment of students for medicine is lagging and all component Societies are urged to make the greatest possible use of the material available through the AMA for presenting the story of medicine to high school students throughout the Nation.

HONORS FOR THE SECRETARY

THEODORE WIPRUD (right), Secretary of the Medical Society of the District of Columbia, expresses pleasure upon receiving from DR. HENRY P. LAUGHLIN, President of the Medical Council of the Washington Metropolitan Area, its Certificate of Appreciation for services rendered. The presentation was made, June 28. Story on page 528.

The following places and dates have been selected for meetings of the Association:

Annual Meetings:
- 1961 New York, June 26–30
- 1962 Chicago, June 11–15
- 1963 Atlantic City
- 1964 San Francisco
- 1965 New York

Clinical Meetings:
- 1960 Washington, D. C. November 28–December 1
- 1961 Denver, November 27–30
- 1962 Los Angeles, November 25–29

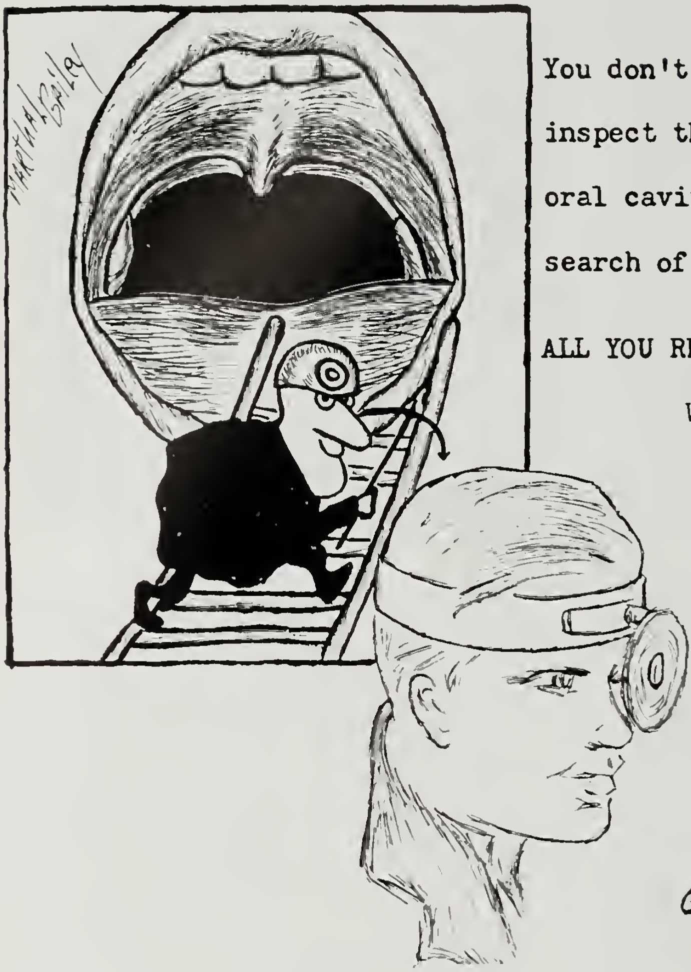
At the Clinical Meeting here in November there will be sessions of the House of Delegates. This presents a wonderful opportunity for members of our Society to attend sessions of the House or of its Reference Committees. Members are reminded that they are quite free to enter the discussion on any subject brought up at hearings by a Reference Committee.

Respectfully submitted,
RAYMOND T. HOLDEN, M.D., *Delegate*
RALPH M. CAULK, M.D., *Delegate*
THEODORE WIPRUD, *Secretary*

DOCTOR ! ! !

You don't need to be a speleologist to inspect the cavernous recesses of the oral cavity, hypopharynx and larynx in search of early cancer.

ALL YOU REQUIRE IS SOME FAMILIARITY WITH THE USE OF



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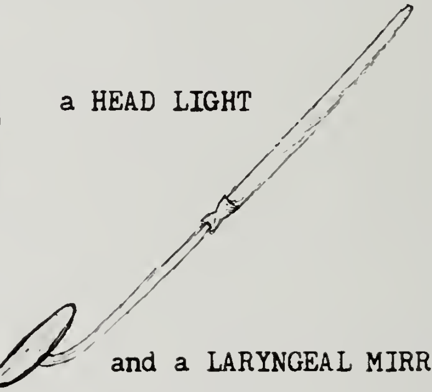

and a LARYNGEAL MIRROR

PLUS A FIRM RESOLVE TO INVESTIGATE ANY PERSISTENT HOARSENESS, COUGH, OR DIFFICULTY IN SWALLOWING

With the tongue protruded and grasped with gauze, the hypopharynx and larynx can be visualized with a mirror. Usually the examination can be made without topical anesthesia. With some patients a local anesthesia agent is necessary.

With a little practice, the foregoing examination can become a part of every routine physical check-up and help to make every doctor's office a cancer detection clinic.

A film, "Head and Neck Cancer," showing methods of complete examination of the head and neck, is available for showing to physicians. Physicians are invited to order copies of a booklet, "Cancer Detection in the Physician's Office," which includes a guide for head and neck examination.

Call or Write

**American Cancer Society
District of Columbia Division, Inc.
810 18th Street, N.W.
Washington 6, D. C.**

EXecutive 3-3690

PROCEDURES FOR ADJUDICATION IN NON-CRIMINAL MENTAL HEALTH CASES IN THE DISTRICT OF COLUMBIA*

ARTHUR C. KATIMS, LL.B.†

Washington

Insanity has received considerable notice in several recent decisions of the United States Court of Appeals for the District of Columbia Circuit. These decisions concern criminal prosecutions in which insanity has been employed as a defense.[1] Most cases coming before the Court in which sanity is the issue do not involve the commission of a criminal act. Public custodians used to imprison insane persons and criminals together until Congress stopped this practice by statute. It declared, "No insane person not charged with any breach of the peace shall ever be confined in the United States jail in the District of Columbia."[2]

One thousand one hundred and fourteen (1,114) mental institutions in the United States reported that over 1,350,000 patients were on their books during 1955. These institutions include public, Federal and private hospitals, as well as psychiatric services in general hospitals and institutions for mental defectives and epileptics. Admissions during the year were almost 500,000 persons.[3] The cost of maintaining patients in state and county hospitals, alone, during 1955 was $618,229,797, and during 1956, it was $662,146,372.[4]

In cases of ordinary illness, there is very little difficulty in persuading the patient to go to the hospital. And in some mental illnesses, a patient has sufficient insight into his condition so that he would voluntarily enter a mental hospital for treatment. The Superintendent of St. Elizabeths Hospital is authorized to accept as a boarder and patient any adult who appears to be in need of mental care and treatment. Such admission may be initiated by the patient applying to the Interstate Services of the D. C. Board of Public Welfare located at the District General Hospital. The applicant must have been a resident of the District of Columbia at least a year immediately preceding the filing of his application and agree to provide for or pay the District of Columbia his hospital cost. Upon meeting the necessary requirements he will be admitted to St. Elizabeths Hospital. A person voluntarily entering the hospital must be released not later than 3 days after having given written notice to the Superintendent requesting such release. However, if within the 3 days a petition is filed in the United States District Court to declare the patient of unsound mind, he will be detained at St. Elizabeths Hospital until final disposition of the petition.[5]

During 1957, 1,960 petitions to adjudicate persons of unsound mind were filed in the United States District Court for the District of Columbia. All petitions, with few exceptions, were initiated on behalf of the District of Columbia Government. The Court referred each petition to the Commission on Mental Health for a report and recommendation before action was taken in the matter. In most cases, adjudication was required in order to place the mentally ill person in St. Elizabeths Hospital. In other cases, the action was necessary in order to detain a mentally ill nonresident so that he could be returned to the state hospital of his residence.

Adjudication can be originated as follows:

I. Family action.

II. By the police when a person is in a public place and the arresting officer believes the person to be mentally ill.

III. With the assistance of the police when a person is not in a public place.

I. Any person with whom an alleged insane person may reside can apply to the United States District Court for the District of Columbia for an inquiry into the mental state and the detention of such alleged insane person. A verified petition must be filed in Court which identifies the petitioner and his relationship to the patient, contains a statement upon which the allegation of insanity of the patient is based, shows that the alleged insane person is a

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* Reprinted by permission from J. Bar A. District of Columbia, 1958, **25**, 294.

† Formerly Chairman of the Committee on Mental Health of The Bar Association of the District of Columbia.

[1] Durham v. U. S., 214 Fed. 2d 862 (1954); Durham v. U. S., 237 Fed. 2d 760 (1956).

[2] Section 333, Title 21, D. C. Code (1951 Ed.).

[3] The American Psychiatric Association and the National Association for Mental Health, Fact Sheet, Number 1, March 1957.

[4] U. S. Department of Health, Education and Welfare, Public Health Service, Public Health Reports, Reprint No. 3286, Vol. 72, No. 1, Jan. 1957, pages 14–15.

[5] Section 412, Title 32, D. C. Code (1951 Ed.).

resident of the District of Columbia and lists his property or estate, if any. The petition must be supplemented by affidavits of 2 or more responsible residents of the District of Columbia setting forth that they believe the subject of the petition to be of unsound mind, the length of time they have known him, that they believe him to be incapable of managing his own affairs, and that if he is permitted to remain at liberty the rights of persons and property will be jeopardized or the preservation of public peace imperiled or the commission of crime rendered probable and that he is a fit subject for treatment by reason of his mental condition. Even though the language of the statute does not require that the affidavits be made by physicians, it is advisable that at least one of the affiants be either a general medical practitioner or a psychiatrist, residing in the District of Columbia.

Upon presentation of the petition and an order of attachment to the Motion's Commissioner, it will be submitted to the Court for consideration. If the Court is satisfied from the contents of the petition and affidavits that the action should be taken it will refer the petition to the Commission on Mental Health and sign the order which directs the United States Marshall to attach the person to be committed and deliver him temporarily to the Superintendent of St. Elizabeths Hospital. The Commission on Mental Health must make a preliminary report to the Court and set the time for a hearing within such time as the Court may designate, not exceeding 7 days. The 7-day limitation may be extended for good cause, and in such event the period of temporary commitment in St. Elizabeths Hospital may be extended by the Court as is necessary.[6]

II. If an alleged insane person is found acting in a peculiar manner in a public place in the District of Columbia, any member of the Metropolitan Police or any other officer authorized to make arrests can take him into custody and deliver him to the D. C. General Hospital for observation. Within 48 hours, the arresting officer must file his affidavit with the Commission on Mental Health, stating that he believes said person to be insane or of unsound mind, incapable of taking care of himself or his property, and if permitted to remain at large or to go unrestrained in the District of Columbia, the rights of persons and of property will be jeopardized or the preservation of peace imperiled and the commission of crime rendered probable.[7]

III. In the case where an alleged insane person is not in a public place and the assistance of the police is required, a different procedure is available. The Police Department has prepared 2 forms known as "Affidavit of Resident" (64A) and "Certificate of Physician" (64B) to be used in apprehending an alleged insane person without a warrant. These forms can be obtained at any local police precinct. Form 64A is executed by a resident of the District of Columbia who swears that he believes the subject to be of unsound mind and incapable of managing his own affairs. Form 64B is executed by a physician, licensed to practice in the District of Columbia and resident in the Metropolitan area. The physician must certify that it is his judgment the person is of unsound mind and is a fit subject for treatment in a hospital and also state his diagnosis. Two affidavits by laymen and 2 certificates by physicians are required. The affidavits and certificates are presented to the police precinct most convenient for the purpose. A police officer will then apprehend and remove the alleged insane person to D. C. General Hospital for observation. The affidavits and certificates are then presented to the Commission on Mental Health within 48 hours.[8]

On the basis of either the arresting officer's affidavit in the case of apprehension in a public place or the presentation of the 2 residents' affidavits and 2 physicians' certificates, the Chief of Police will initiate the inquiry on behalf of the District of Columbia.

After the petitions have been filed in each of the 3 foregoing instances and referred to the Commission on Mental Health by the Court, the Commission will examine the alleged insane person and any other person, whose testimony may be relevant, competent and material upon the issue of insanity. It will then, after giving at least 5 days' notice to the patient, hold the hearing at which the alleged insane person may be heard and at which other witnesses may testify in his presence. At all hearings, the alleged insane person has the right to be represented by counsel.[9]

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[6] Section 310, Title 21, D. C. Code (1951 Ed.); Section 311, Title 21, D. C. Code (1951 Ed.).

[7] Section 326, Title 21, D. C. Code (1951 Ed.).

[8] Section 327, Title 21, D. C. Code (1951 Ed.).

[9] Section 311, Title 21, D. C. Code (1951 Ed.); Section 308, Title 21, D. C. Code (1951 Ed.) cf. DOOLING v. OVERHOLSER, —— U. S. App. D. C. ——, —— F. 2d —— (1957).

Upon completion of the hearing, the Commission will make a Report and Recommendation to the Court. The conclusion therein may be that the patient is of sound mind, that the petition be dismissed and the patient discharged forthwith; or that the patient is of unsound mind, incapable of managing his own affairs and should be committed to St. Elizabeths Hospital for treatment of his mental condition. Other recommendations concerning provision for payment of the hospitalization or appointment of a committee to administer the estate of the patient are usually included in the Report. In some instances, the Commission might determine that the patient is mentally ill but harmless and may safely be committed to the care of his relatives or friends. The statute also provides that a patient may be committed to the Administrator of Veterans' Affairs for care and treatment at a Veterans' Administration facility.[10]

A copy of the Report and Recommendation is served personally on the patient. A notice which is served on him at the same time informs the patient that he must demand a jury trial within 5 days, if he should desire one.[11] Should he demand a jury trial, a jury will be empaneled, upon order of the Court, from the jurors in attendance on the Court.[12] The issue of the trial is simply whether or not the patient is of sound or unsound mind and the burden is on the petitioner to prove that the patient is of unsound mind. The statutes, as a whole, make clear that the action is a proceeding in equity.[13]

If no demand has been made for a jury trial, the judge holding Court will determine the issue of sanity or insanity, taking into consideration the Report of the Commission. He may, in his discretion, require other proof. He may even dismiss the petition notwithstanding the recommendation of the Commission.[14] If in a jury trial, a jury finds the alleged insane person insane, the judge may commit the insane person as he, in his discretion, shall find to be for the best interests of the public and of the insane person.[15]

Correspondence

To: Executive Board
From: Zigmond M. Lebensohn, M.D., *Chairman*, Committee on Mental Health, the Medical Society of the District of Columbia
Re: Activities of Committee on Mental Health in connection with the 21st Annual Judicial Conference of the District of Columbia Circuit

Consultants were invited to attend and to participate in the working groups of the 21st Judicial Conference of the District of Columbia Circuit, held on May 26, 1960 in Washington, D. C., for the first time in its history. It is a signal honor that psychiatry was the first of such nonlegal disciplines to be selected. The 2 chief psychiatric consultants were Dr. Winfred Overholser and the Chairman of the Medical Society's Committee on Mental Health.

Following my appointment as consultant to the Conference by Circuit Judge Charles Fahy, Chairman of the Conference, a joint meeting of the Committee on Mental Health with the special study group of the Judicial Conference, headed by Sidney S. Sachs, Esq., was held in the Medical Society's building on March 21, 1960. It is of significance to note that there was 100 per cent attendance of both the legal and medical groups. At that meeting it was announced that the work would be centered about the subject, "Problems connected with mental examination of the accused in criminal cases, before trial." This subject was further divided into 4 subheadings: (1) Who should be examined? (2) When should the examination be conducted? (3) By whom should the examination be conducted? (4) What should be the scope of the examination?

In addition to the Chairman, the following 3 members of the Committee were appointed to work with specific subgroups and gave freely of their time: Dr. Warren C. Johnson, Dr. Morris Kleinerman, and Dr. Norman Taub. Physicians who attended the Judicial Conference as psychiatric consultants were: Drs. Overholser, Lebensohn, Johnson, Kleinerman, Taub, William G. Cushard, Mary McIndoo, David Owens, Mauris Platkin, James Ryan, and John D. Schultz.

(Continued on page 534)

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[10] Section 317, Title 21, D. C. Code (1951 Ed.).
[11] Section 312, Title 21, D. C. Code (1951 Ed.).
[12] Section 313, Title 21, D. C. Code (1951 Ed.).
[13] Section 306, Title 21, D. C. Code (1951 Ed.).
[14] Section 314, Title 21, D. C. Code (1951 Ed.).
[15] Section 315, Title 21, D. C. Code (1951 Ed.).

MELWOOD FARM FOR ALCOHOLICS

The alcoholic patient presents himself more and more frequently to his family physician for advice and treatment of his problem drinking. Tranquilizing agents have simplified the treatment of acute alcohol withdrawal, but their use has done little to solve some of the problems that lead the alcoholic to further drinking. The results of "drying out" in a sanitarium or a general hospital may be the beginning of a lasting recovery program, but too often such temporary measures only induce a remission in the disease.

Melwood Farm, located near Olney, Maryland, has been developed as a retreat for the alcoholic who has completed withdrawal from alcohol, yet recognizes the need for further professional help for his drinking problem. Melwood's quiet atmosphere provides a homelike environment where the pressure of day-to-day living can be reduced so that physical and mental health can be restored. A planned program of informal group discussions and individual counseling is offered to help each patient develop a better understanding of his problem.

The trustees of Melwood Farm are Drs. Earl H. Mitchell, W. F. Cresswell, Jr., and Hayden Kirby-Smith, and Mr. Herbert J. Korzendorfer. Drs. Cresswell and Mitchell direct the rehabilitation program and are assisted by Mrs. Mary F. Bacon, who is administrator.

The Manor House, built in 1829, has been carefully restored and modernized to provide comfortable and gracious accommodations for 10 guests at the present time. Bachelor quarters for 5 men are located in the Carriage House. The Guest Cottage is used for recreation, group therapy, and for the meetings of Alcoholics Anonymous, which are held at Melwood each Friday evening.

The secluded 40-acre tract surrounding the Manor provides many recreational activities. A spring-fed lake, stocked, is available for fishing. There are opportunities for many other pleasant outdoor activities, such as helping with the farm chores, taking quiet walks, or simply resting. Leisurely evening hours provide ample time for fellowship, music, bridge, movies, and bedtime snacks.

The program at Melwood is designed to teach each patient the facts about the disease of alcoholism and to give each a better understanding of himself and his illness. Educational films, tape recordings, and textbooks on alcoholism are used to supplement individual counseling and group discussions. The resources of Alcoholics Anonymous are available to those patients who wish to participate. Assistance is given to members of the family and employers whenever possible and they are encouraged to take part in the recovery program.

The cost of residence at Melwood is $135.00 per week, and guests must be sponsored by their physician, clergyman, or a member of Alcoholics Anonymous. In order to gain the full benefit of Melwood's comprehensive program, prospective guests are requested to arrange for an uninterrupted residence of 2 to 4 weeks. Further information may be obtained by calling Walker 4-4744, or by writing to Melwood Farm, Box 182, Olney, Maryland.

MELWOOD FARM—a Retreat for Alcoholics

ON THE LIGHTER SIDE

The captain and his first mate were on deck and patiently waiting as the 3 guest fishermen drove up to the dock in a swirl of dust. The spic and span *Hel-Kel* was gently riding at anchor with her 2 powerful motors purring to perfection. The captain was anxious to get under way and his guests had been delayed. He paced the deck, looked at his watch, said something to the first mate, and then spied the 3 piling out of their car. "What in the world kept you guys?" he growled as he grinned from ear to ear. "Welcome aboard!"

Five minutes later the anchor was up, the hawser lifted, and the 3 guest fishermen comfortably relaxed with the confidence born of friendly association as the skipper eased the sleek white yacht out of its birth into the channel of the Chesapeake Bay.

It was a beautiful sunny day, perfect for fishing. This ink-stained wretch had been looking forward to this day of relaxation for some time. It was now here. Howard Donald was in the marital doghouse, and when this opportunity presented itself to go fishing, he accepted with alacrity. After all, if one is to be relegated to the doghouse one might as well be the dog! Clyde Reeves, a sort of bachelor type, does not have this particular problem and can come and go as he pleases; therefore, when the invitation arrived to go fishing on the *Hel-Kel* he eagerly assented. Thus, when this day broke warm and sunny the duties of being a doctor quickly fell into line with ease and rapidity, and all 3 fishermen were geared and ready to leave by 11 a.m. for Rose Haven.

The cool green Bay water was calm and clear. An occasional fat jellyfish lazily floated by with relaxed tentacles dragging. The sun was hot but the breeze generated by the forward motion of the trim yacht was cooling to the 3 as they labored over their lines getting the hooks baited and snarls untwined.

Captain Kelly Waters aided in getting the lines securely overboard while his pretty first mate, Helen Waters, steered the *Hel-Kel* with precision and dexterity. Soon the enthusiasm of all on board mounted heavenward as Howard Donald made a double header strike of 2 pan-sized rockfish. However, this was to be the only rock caught until late in the day, when Clyde Reeves, after a terrific tussle, hauled in the child of the previous 2 rock.

According to tradition there is always "One on Every Boat!" Sure enough, we had "One" on our fishing trip. He caught everything on top and under the water at every fishing-hole over which the *Hel-Kel* stopped. It was only a matter of baiting his lines and throwing them overboard, and what followed was the envy of all aboard. He caught spot, he caught perch, he caught hardheads, and he even caught them 2 at a time! But that is how the cookie crumbles at times! But—ah—what a wonderful time for all on the *Hel-Kel*, thanks to the captain and his first mate.

* * * * *

Bowling note: The new Doctors' Bowling League is now a bona fide reality. On the hot humid evening of August 10, 1960 the new League was born with a minimum of labor and no pain at all. In less than 2 productive hours the birth was accomplished in the conference room of the Lafayette Bowling Alleys. The doctors who attended the birth were the new president of the Doctors' Bowling League, Dr. Clyde Reeves, and the new Vice President, Dr. Joseph Cosimano. Soothing analgesia was administered by Dr. George Resta as helpful guide and counselor.

There will be an initial 12 teams to inaugurate the fledgling League on Friday night, September 23. Those who will captain the teams are as follows: Dr. Frank Bacon, Dr. Joseph Cosimano, Dr. Charles Hageage, Dr. Ernest Bouchard, Dr. Henry Canton, Frank Weber, Bob Chapman, Frank Baiers, Dick Newman, Dr. Eugene Stammeyer and Dr. Earl Kadan.

Dr. Victor Alfaro, the President of the D. C. Medical Society, has graciously accepted the invitation to roll the first ball down the shiny mapleways on the opening night, thereby officially opening the 1960–1961 bowling season for the new Doctors' Bowling League. From that historic moment on the National Duckpin Association Rules will apply to all teams and members of the League. Anyone who is interested in bowling in the new Doctors' Bowling League may phone either the President, Dr. Clyde Reeves, or the Vice President, Dr. Joseph Cosimano, for information.

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Chuckle note: A wolf is a guy who knows all the ankles.

J. Earl Kadan, M.D.

Books Received

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interest of our readers and as space permits. Physicians are urged to submit reviews of additional books which, in their opinion, merit comment.

Experiments and Observations on the Gastric Juice and the Physiology of Digestion by William Beaumont, M.D., Surgeon in the United States Army. Facsimile of the original edition of 1833 together with a biographical essay, A Pioneer American Physiologist, by Sir William Osler. Price (paper), $1.50. Pp. 274. New York: Dover, 1959.

Classics of Medicine and Surgery (formerly titled: Epoch-making Contributions to Medicine, Surgery and the Allied Sciences) collected by C. N. B. Camac. Price (paper), $2.25. Pp. 435. New York: Dover, 1959.

Medicine Today: A Report on a Decade of Progress. Marguerite Clark. Pp. 360. New York: Funk & Wagnalls, 1960.

Source Book of Medical History, compiled with notes by Logan Clendening, M.D. Price (paper), $2.75. Pp. 685. New York: Dover, 1960.

Rudolph Matas—A biography of one of the great pioneers in surgery. Isidore Cohn, M.D., with Hermann B. Deutsch. Price, $5.95. Pp. 431. Garden City, N. Y.: Doubleday, 1960.

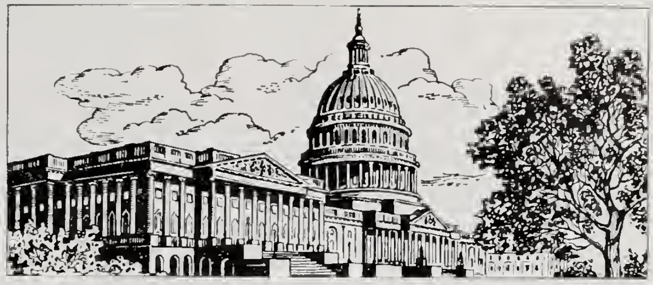
The Office Assistant in Medical Practice, 2nd ed. Portia M. Frederick, Instructor, Medical Office Assisting, Long Beach City College, and Carol Towner, Director of Special Services, Communications Division, American Medical Association. Price, $5.25. Pp. 407, illustrated. Philadelphia: Saunders, 1960.

Practical Clinical Management of Electrolyte Disorders. William J. Grace, Director of Medicine, The St. Vincent's Hospital of the City of New York; Professor of Clinical Medicine, New York University School of Medicine; formerly, Associate Professor of Medicine, Cornell University Medical College. Price, $4.95. Pp. 132. New York: Appleton, 1960.

Women and Fatigue. A Woman Doctor's Answer. Marion Hilliard, M.D. Price, $2.95. Pp. 175. Garden City, N. Y.: Doubleday, 1960.

Medical Research and the Death Penalty. A Dialogue. Jack Kevorkian, M.D. Price, $2.50. Pp. 75. New York: Vantage, 1960.

Your Child's Care—1001 Questions and Answers. A new, revised, and enlarged edition of "A Pediatric Manual for Mothers." Harry R. Litchfield, M.D., F.A.C.P., Director, Department of Pediatrics and Baby Care Clinics, Brooklyn Women's Hospital; Director, Children's Clinics, East New York Dispensary; Senior Attending Pediatrician, Beth-El Hospital, Brooklyn, N. Y.; Consultant Pediatrician, Rockaway Beach Hospital, Rockaway Beach, L. I., and Leon H. Dembo, M.D., Assistant Clinical Professor of Pediatrics, Western Reserve University School of Medicine; Associate Pediatrician, University Hospitals (Babies & Children's); Senior Visitant in Pediatrics, St. Luke's Hospital; Consultant in Pediatrics, St. Ann and Polyclinic Hospitals; Chief of Pediatrics, DePaul Infant Home, Cleveland, Ohio. Price, $3.95. Pp. 257. Garden City, N. Y.: Doubleday, 1960.



NEWS & PERSONALS

Meetings

A program devoted to the general problems of medicine will be presented to physicians of the Washington Metropolitan Area on October 29 at the Hotel Statler-Hilton. This program will be somewhat similar to the one presented in March 1958, when a Forum on Medical Economics was sponsored by the Medical Council of the Washington Metropolitan Area in conjunction with the William S. Merrell Company of Cincinnati, Ohio.

The Medical Council is again sponsoring this meeting, and Peoples Drug Stores, Inc., has agreed to provide adequate funds to meet expenses.

The Program Committee, appointed by Dr. Henry P. Laughlin, President of the Council, is composed of Dr. Thomas E. Haggerty, Chairman, and Drs. Stephen J. Sheehy, Ben C. Jones, Jr., David S. Clayman, W. LeRoy Dunn and Mr. Theodore Wiprud.

More details of the program will be mailed to members ahead of the October meeting.

Providence Hospital Alumni Association is sponsoring a **Postgraduate Symposium on Obstetrics and Gynecology** on Thursday, September 22, from 10:00 a.m. to 4:30 p.m. in the ground-floor auditorium at the Hospital. Dr. George J. Ellis, Chief of the Hospital's Department of Obstetrics and Gynecology, is Chairman of the program, and Dr. L. V. Dill, Associate Attending in Obstetrics and Gynecology, will act as moderator. Attending and resident physicians of all hospitals are invited to attend as well as interested physicians. There is no registration fee.

The program follows:

10:00 a.m. "Gynecological Endocrinology," Dr. Max Sherer, Clinical Instructor in Medicine, George Washington University School of Medicine

10:45 "Repeat Cesarean Section," Colonel H. L. Riva, M.C., USA, Chief of Obstetrics and Gynecology, Walter Reed General Hospital

11:30 "Vaginal Lesions," Dr. Coleridge M. Gill, Clinical Assistant Professor in Obstetrics and Gynecology, Howard University College of Medicine

2:00 p.m. "The Immunology of the Rh Factor," Dr. Milton S. Sacks, Professor of Clinical Medicine and Head of the Department of Clinical Pathology, University of Maryland

2:45 "Birth Injuries through a Neurologist's Eyes," Dr. Jonathan M. Williams, Assistant Clinical Professor of Neurological Surgery, George Washington University School of Medicine

3:30 Panel Discussion on Vulvar Pruritic Lesions. Panelists: Dr. Raymond A. Osbourn, Clinical Associate Professor of Medicine (Dermatology, Syphilology and Mycology), Georgetown University School of Medicine; Dr. Jed W. Pearson, Jr., Associate in Obstetrics and Gynecology, George Washington University School of Medicine; and Dr. Isadore Rodis, Clinical Associate Professor of Psychiatry, Georgetown University School of Medicine

Any further details of the program may be secured from Dr. Ellis or from the Office of Public Information of Providence Hospital.

The Tenth Annual Instrument Symposium and Research Equipment Exhibit will be held, October 3–7 at the National Institutes of Health in Bethesda. Examples of the latest mechanical, optical, and electronic devices for laboratory and clinical investigations will be on display. At the instrument symposium, nationally known speakers will present papers on subjects of current research interest in their specialties. Paralleling the symposium, special instrument clinics have been scheduled by 6 of the exhibiting firms to demonstrate the research applicability of their newest equipment.

Dr. James A. Shannon, Director of NIH, will open the Symposium on Instrumentation, October 3, at 8:00 p.m. The scientific meetings will continue through the week with two sessions daily at 2 and 8 p.m., with the final session on October 6 at 2 p.m.

The equipment exhibit, housed in Building 22, will be open daily from 11:00 a.m. to 5:00 p.m., October 4–7. On October 6 the exhibit will remain open until 9:00 p.m. Instrumentation sessions will be held the mornings of October 5, 6, and 7, beginning at 9:30.

Attendance at this year's exhibit is expected to surpass all previous records. Last year some 5,000 medical and technical people from Federal and private research institutions, pharmaceutical houses, universities, and hospitals in all parts of the Nation and from a number of foreign countries participated. All persons with professional or technical interest in research instrumentation are invited to attend the symposium and view the exhibit.

Additional information may be secured from Mr. James B. Davis of the National Institutes of Health, Public Health Service, Bethesda 14, Maryland, telephone Oliver 6-4000, extension 2315.

The Committee on the Skeletal System of the National Academy of Sciences is sponsoring a research seminar, October 6–8, which will be held in the Medical Society's auditorium at 1718 M Street, N.W. Chairman is Dr. A. R. Shands, Jr., of the National Academy of Sciences. Invitations have been extended to members of the Orthopaedic Research Society and to heads of departments of orthopedic surgery of all medical schools. The meetings will be held on Thursday and Friday, from 9:00 a.m. to 5:00 p.m., and on Saturday from 9:00 a.m. to 12:00 noon.

Children's Hospital is offering a **Postgraduate Course in Hypersensitivity and Pulmonary Function** under the auspices of the Allergy Section of the Research Foundation of the Hospital. This course will be of special interest to physicians doing clinical allergy, as well as to pediatricians, internists and general practitioners.

The course will be held on three days, Friday, October 7, from 1:00 to 4:30 p.m., when the general subject under discussion will be "Principles of Pulmonary Function as Applied to Allergic Disorders"; Saturday, October 8, 9:00 a.m. to 4:00 p.m., "Basic Immunology and Immunochemistry," and Sunday, October 9, 9:00 a.m. to 4:00 p.m., "Biological Manifestations of Antigen-Antibody Reactions."

Lecturers have been selected from nearby medical institutions, including the Naval Medical Center, Veterans Administration Hospital, Division of Biologic Standards of NIH, Walter Reed Army Institute of Research, and the National Institute of Allergy and Infectious Diseases. The first Harry Hampton Donnally Memorial Lecturer will be Dr. Oscar Swineford, Jr., of the University of Virginia School of Medicine, who will speak on "A Critical Analysis of the Asthma Problem," October 7, at 8 p.m.

The registration fee is $50.00. Application for enrollment and check should be sent to Dr. Richard H. Todd, Children's Hospital, 2125 13th Street, N.W., Washington 9, D. C. The fee includes dinner and cocktails, October 7.

Sibley Memorial Hospital is presenting a postgraduate course on October 14 and 15 which is designed to review selected topics in neurology with particular emphasis on newer concepts. The course should be of particular interest to neurologists, internists, and general practitioners. The registration fee is $37.50.

The meetings will begin on Friday, October 14, at 1:30 p.m. and will conclude with a dinner party at the Hotel Statler-Hilton on Saturday, October 15, at 6:00 p.m. for those who wish to attend.

The discussants for the panels will be:

Dr. Frank A. Elliott, Chief of Neurologic Service and Director of Neurologic Research of Pennsylvania Hospital; Professor of Clinical Neurology, University of Pennsylvania Medical School.

Dr. Joseph M. Foley, Professor of Neurology, Seton Hall College of Medicine and Dentistry.

Dr. Simon Horenstein, Associate in Neurology, Harvard University School of Medicine, and Instructor in Neurology, Tufts Medical College.

Dr. Elliott L. Mancall, Assistant Professor of Neurology, Jefferson Medical College.

Dr. Harold Stevens, Professor of Neurology, George Washington University School of Medicine.

Four topics will be considered, with panel discussion and open discussion to follow the presentation of papers. The subjects and speakers are as follows:

I. Common Neurologic Problems; Dr. Foley, Moderator
  "Some Practical Aspects of Neurological Diagnosis," Dr. Horenstein
  "The Common Mononeuritides," Dr. Stevens
  "Alcoholic Encephalopathies," Dr. Mancall
II. Involuntary Movements; Dr. Elliott, Moderator
  "Involuntary Movements" (movie and discussion), Dr. Stevens
  "Differential Diagnosis," Dr. Elliott
  "Therapy of Involuntary Movements," members of the panel
III. Clinical demonstration (St. Elizabeths Hospital amphitheatre); Dr. Stevens, Moderator
  Case presentations to include various dyskinesias: Huntington's chorea, parkinsonism, Wilson's disease, senile tremor, and others; organic brain sydromes: paresis, Korsakoff's syndrome, traumatic encephalopathy, and others.
IV. Organically Determined Disturbances of the Mind; Dr. Foley, Moderator
  "Differential Diagnosis," Dr. Horenstein
  "The Work-up and Management of Organic Brain Disease," Dr. Foley.

Further information may be secured from the Director of Medical Education of Sibley Hospital. The meetings will be held in the Rust Hall Chapel, except for the presentation and demonstration of unusual neurologic syndromes at St. Elizabeths Hospital on Saturday morning.

Members of the Medical Society are invited to attend the **Twelfth Annual Scientific Assembly of the Maryland Academy of General Practice,** to be held at the Southern Hotel in Baltimore, October 8–9.

The scientific program for the 2-day session follows:

SATURDAY, OCTOBER 8

10:00 a.m. "Let's Abolish CVA as a Diagnosis," Dr. John A. Wagner, Baltimore
10:30 "How Dangerous Is Penicillin?" Dr. Edward Roberts, Philadelphia
11:10 "Everyday Problems of the Everyday Child," Dr. Leo Kanner, Baltimore
1:00 p.m. "Management of the Chronic Arthritic," Dr. Sydney Stillman, Boston
1:55 "Contact Dermatitis—Diagnosis and Treatment," Dr. Harry M. Robinson, Jr., Baltimore
2:45 "Age with a Future," Mr. Clark Tibbitts, Washington

SUNDAY, OCTOBER 9

10:00 a.m. "What's New in Immunology?" Dr. Mahlon Z. Bierly, Marietta, Pa.
10:40 "TB and the Elderly Patient," Dr. Patrick Storey, Baltimore
11:20 "Pro's and Con's of Anticoagulant Therapy in Cardiovascular Disease," Dr. Henry Russek, Staten Island, New York
1:30 p.m. "Office Gynecology and Cancer Protection," Dr. Howard W. Jones, Jr., Baltimore
2:10 Panel Discussion on Diabetes: Dr. A. A. Silver, Baltimore, Moderator. Participants: Drs. Sheldon Eastland, Samuel Bessman, and Thaddeus Prout, all of Baltimore

The annual banquet of the Academy will be held on Saturday evening, preceded by a reception and cocktail hour. A program has also been planned for the ladies for Saturday afternoon, which will include a tour of the northern suburbs of Baltimore, luncheon at the Hampton House, and an opportunity for shopping in the afternoon.

Mr. William J. Wiscott, Executive Secretary of the Academy, will be glad to furnish any further information.

General News

Dr. W. Ross Morris presided at the meeting of the **Executive Board of the Medical Society of the District of Columbia** on June 27. Dr. C. Willard Camalier, Jr., was selected to receive the 1960 Certificate for Meritorious Service, which will be presented this fall.

Dr. Raymond T. Holden, Senior Delegate to the AMA, reported to the Board on the recent meeting of the AMA House of Delegates at Miami Beach. His report, submitted in behalf of the other delegates and Theodore Wiprud, Secretary of the Society, appears on page 516 of this issue.

The Board was advised that Dr. Donald Stubbs, President-elect of the Society, has been appointed to a new Commission on the Costs of Medical Care, which has been established by the AMA. Dr. Louis M. Orr, President of the AMA, is Chairman of the Commission.

President Alfaro reported that he had directed a communication to the Honorable Joseph G. McGarraghy, Judge of the U. S. District Court for the District of Columbia, urging the reappointment of Dr. Preston A. McLendon to the Board of Education. Subsequently Dr. McLendon was reappointed to the Board. The Executive Board approved the action of the President in endorsing Dr. McLendon for this post.

A motion was made and carried that the Board approve the creation of a separate review committee to which companies writing voluntary Major Medical coverage might submit questionable physicians' bills for arbitration.

A new directory describing 3,779 blood transfusion facilities and identifying their services was mailed to medical institutions in July by the **Joint Blood Council of Washington, D. C.** This second directory lists nearly twice the number of blood-handling institutions as the 1958 edition. It shows the location of facilities, the extent of their operations, how they are organized, what specific services they offer, and other information of importance to physicians, hospitals, and any person or organization interested in blood and its derivatives. Copies of the directory are available from the Joint Blood Council, 1832 M Street, N.W., at $2.50 each postpaid.

Applications for grants for medical and social research in tuberculosis and other respiratory diseases are now being accepted by the **National Tuberculosis Association** through its medical section, the American Thoracic Society. Applications for the grant year July 1, 1961 through June 30, 1962 must be submitted by December 15, 1960 to the Division of Research and Statistics, ATS, 1790 Broadway, New York 19, N. Y.

The American Thoracic Society (formerly the American Trudeau Society) is soliciting abstracts of papers on all scientific aspects of tuberculosis and nontuberculous respiratory diseases for presentation at its annual meeting in Cincinnati, May 22–24, 1961. Abstracts should be in the hands of the Program Committee not later than January 7, 1961. Rules governing the submission of abstracts may be obtained by writing Dr. Leon H. Schmidt, Chairman of the Medical Sessions Committee of ATS.

At its recent meeting in Miami Beach the Board of Directors of the **American Academy of General Practice** formally endorsed **Project Hope** and gave concrete evidence of its enthusiasm for the plan by a $1,000 contribution. The Academy also urged its 26,000 members to volunteer for either 1-year or 2-year tours of duty on one of the 4 newly equipped ships.

Project Hope, a voluntary contribution program that does not rely on Federal funds, is headed by Dr. William B. Walsh, of Washington. The 4 ships, part of the famed mothball fleet, were made available to the Project at the suggestion of President Eisenhower. The first ship is expected to sail this month.

Dr. Floyd C. Bratt, of Rochester, N. Y., President-elect of the Academy, was named Chairman of a special "Project Hope" Committee. "The Academy believes," Dr. Bratt said, "that trained family doctors can make continuing contributions to medical care standards in all parts of the free world. They cannot only treat patients but they can pass along, to doctors and technicians in other lands, up-to-date diagnostic and therapeutic technics."

The Medical Council of the Washington Metropolitan Area, at its meeting, June 28, presented **Theodore Wiprud,** Secretary of the Medical Society, with a framed certificate to "gratefully acknowledge [his] devoted services on behalf of his professional colleagues and the public" through the Council. Dr. Henry P. Laughlin, President of the Council, in making the presentation, noted that Mr. Wiprud, founder of the Council, was made an honorary life member on May 27, 1958.

Certificates in appreciation of service to the Council were also presented to Dr. Ralph M. Caulk, President of the Council, 1957–58; to Dr. James M. Moss, President, 1958–59, and Dr. Haskins Ferrell, Jr., Vice President, 1957–58, both of the Alexandria City Medical Society; and to Dr. William T. Joyce,

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Information, through which requests for speakers for lay groups, including radio programs, can be filled.

Date	*Speaker*	*Subject or Title**	*Organization*
July 8	Dr. Robert Stolar	Skin Problems	Inga's Angle, WRC-TV
July 12	Dr. James Q. Gant, Jr.	Scalp Problems	
July 15	Dr. Arthur Dick	Plastic Surgery	
July 22	Dr. Milton C. Cobey	Foot Problems	
July 29	Dr. Warren Brill	Diet for Health	
August 2	Dr. John P. Adams	Posture	
August 5	Dr. Elizabeth Parker	Maturing	
August 9	Dr. Jack Crowell	Underweight and Obesity	

* All of the speakers contributed to a special series on "Adolescent Problems" sponsored by WRC-TV during July and August.

of the Montgomery County Medical Society, who was Vice President in 1958–59.

The School of Medicine of Georgetown University announces the appointment of **Dr. Cutting B. Favour** as Professor and Chairman of the Department of Preventive Medicine and as Associate Professor of Medicine, effective July 1, 1960. Dr. Favour comes to Washington from the Palo Alto (Calif.) Medical Research Foundation where he was Director of the Department of Immunology. He obtained his medical degree from Johns Hopkins University School of Medicine. Since 1943 he has held a number of important teaching positions and hospital staff appointments, notably at Harvard, the Rockefeller Institute, Stanford University School of Medicine, and his most recent post.

The School of Medicine also announces the promotion of **Dr. Myron Wisneski** to the post of Executive Officer of the Department of Medicine.

Dr. Joseph Hanford Gerber was appointed **Director of the Center for Aging Research** of the National Institutes of Health, effective July 1. Formerly Medical Officer in Charge of the Indian Health Area Office in Aberdeen, S. D., he succeeds Dr. G. Halsey Hunt, who is now Chief of the Division of General Medical Sciences.

Dr. Gerber, a native of New York City, graduated in medicine from New York University School of Medicine in 1933 and received a degree in Public Health from Yale University in 1948. He joined the Public Health Service in 1950.

Providence Hospital has rceived its first medical research grant from the Public Health Service, which consists of a 3-year grant in the sum of $45,000. The fund will be used to investigate the relationship of vitamin C in the formation and breakdown of adrenal hormones. **Dr. Habeeb Bacchus,** head of the Hospital's Metabolic Clinic, is project director of the special research.

Dr. Bacchus is an Active member of the D. C. Medical Society. He is a graduate of George Washington University School of Medicine and holds a doctorate in physiology from the same school. Dr. John F. Finnegan, President of the Hospital's medical staff, predicts that the grant, although a modest one, may launch the Hospital on a more extensive medical research program.

The Section on Radiology of the Medical Society of the District of Columbia will be served by the following officers during 1960–61:

Dr. Charles E. Bickham, *Chairman*; Dr. John S. Hashim, *Chairman-elect*; and Dr. William E. Sheely, *Secretary-Treasurer*.

The following officers were elected by the **Section on Otolaryngology** for 1960–61:

Dr. Max J. Fischer, *Chairman*; Dr. Adrian J. Delaney, *Vice Chairman*; Dr. Robert Ralph, *Secretary*; and Dr. Joseph Daly, *Treasurer*.

The new officers for the **Section on Internal Medicine and Allied Subspecialties** are:

Dr. William K. Billingsley, Jr., *Chairman*; Dr. Alfred Brigulio, *Vice Chairman*; Dr. Warren D. Brill, *Secretary*; and Dr. Frank A. Finnerty, Jr., *Treasurer*.

The District of Columbia Society of Internal Medicine elected new officers, July 1, 1960. They are:

Dr. Frank S. Bacon, *President-elect*; Dr. Warren D. Brill, *Secretary*; and Dr. Frank A. Finnerty, Jr., *Treasurer*.

Dr. John F. Finnegan was installed as President of the Society. Drs. Clayton B. Ethridge and Benjamin Manchester were elected to the Executive Committee.

The District of Columbia Pharmaceutical Association installed new officers at its 108th Annual Convention in Ocean City, Maryland. The new officers are:

Charles N. Grubb, *President*; Walter E. Mancuso, Elmer C. Hillman, Jr., Aaron Rosenstadt, and John Iglehart, *Vice Presidents*; Charles W. Bliven, *Secretary and Treasurer*; and Miss M. Eileen Brooks, *Executive Secretary*.

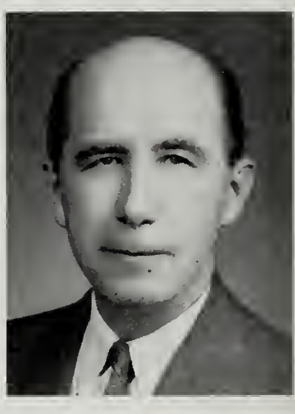
Mr. William H. French, of Maxwell & Tennyson, was presented with the Pharmacist of the Year Award.

Dr. Harold D. Kautz, Secretary of the Council on Drugs of the American Medical Association, who has been connected with the Council in various capacities for 21 years, has accepted a position as Director of the Division of Product Information in the Medical Department of Abbott Laboratories, North Chicago, Ill.

Mr. V. O. Foster has been officially retired from his office as Professional Relations Counselor of the **Southern Medical Association** due to ill health. Mr. Robert F. Butts succeeded Mr. Foster as Executive Secretary-Treasurer in January of this year.

Personals

Dr. E. Clarence Rice and Dr. Isidore Lattman received the **Pediatric Honor Awards for 1959** at a reception given in their honor, June 22, in the Kober-Cogan Lounge by the Department of Pediatrics of Georgetown University. The Pediatric Honor Awards were established in 1953 to recognize outstanding contributions in the scientific, research, or teaching areas.



Dr. Rice

Both Dr. Rice and Dr. Lattman have distinguished themselves as educators and scientists during long teaching careers, the former in pathology and the latter in radiology.

Dr. Rice, Clinical Associate Professor in Pediatrics (Pathology), will resign from the Department this year after serving on the faculty for more than 30 years. He was Director of Laboratories at Garfield Memorial Hospital from 1946 until it merged into the Washington Hospital Center, where he has served as consultant in pathology and medicine. He was associate pathologist at Episcopal Eye, Ear, and Throat Hospital from 1935 until it merged with the Center in 1957. He is a diplomate of the American Board of Pathology and a member of many scientific organizations, particularly in the field of pathology.

Dr. Lattman was affiliated with the firm of Groover, Christie and Merritt at old Garfield Memorial Hospital for a total of 15 years. In 1954 he retired from private practice to devote his full time to the X-ray Department of Children's Hospital, which he heads, and where he has served for more than 30 years. He joined the faculty of Georgetown University School of Medicine in 1932 and is presently Associate Professor of Radiology and Clinical Associate Professor of Pediatrics, in Radiology. He is a diplomate of the American Board of

Dr. Lattman

Radiology and a member of many scientific organizations devoted to his own specialty and to related fields.

Both physicians are alumni of George Washington University School of Medicine, Dr. Rice, a member of the Class of 1916 and Dr. Lattman, of the Class of 1925. Dr. Rice is a Life member of the D. C. Medical Society, and Dr. Lattman an Active member since 1926.

Dr. Frederic G. Burke, Professor and Director of the Department of Pediatrics, in presenting the Honor Awards, described the contributions of both physicians as "incalculable" and stated that "their inspirational teaching and example have deeply influenced the lives and careers of hundreds of Georgetown pediatric trainees."

Dr. Josephine J. Buchanan, Chief of Physical Medicine and Rehabilitation at D. C. General Hospital, was cited by the District Commissioners, July 14, for outstanding community service. She received Washington's Meritorious Public Service Award from the late Commissioner David B. Karrick especially for her work with the Hospital Advisory Council.

Dr. Buchanan has been affiliated with D. C. General Hospital for about 10 years. Since 1954 she has been on the faculty of Georgetown University as Clinical Assistant Professor of Physical Medicine and Rehabilitation. She is Board-certified in her field and holds membership in many professional societies. Her community services encompass participation in the Health Section of the United Community Services, the Rehabilitation Center of Good Will Industries, the D. C. Council on Aging, and membership on the Medical Advisory Board of the D. C. Muscular Dystrophy Association. A few years ago she was one of three physicians cited by the President's Committee on Employment of the Physically Handicapped for her work in this community.

Dr. Zigmond M. Lebensohn participated as consultant in the Conference on Socio-Legal Problems in the Area of Mental Health and Mental Illness, which was held at the Wort Hotel in Jackson, Wyoming, June 30, July 1 and 2. The conference was called to reconsider Wyoming's laws for hospitalizing the mentally ill. Some 50 persons from Wyoming, who because of their professional role or agency affiliation are concerned with legislation relating to mental illness, were invited to attend the conference, to which had also been invited as consultants persons from various areas of the Nation who have distinguished themselves in the areas encompassed in the agenda of the meeting.

Dr. Lawrence S. Lilienfield, Assistant Professor of Medicine, Georgetown University School of Medicine, has been awarded a grant-in-aid for research on intrarenal circulation from the American Heart Association. Dr. Lilienfield is also directing research on "Renal Hemodynamics: RBC and Plasma Transit Times," a study supported by a research grant from the National Institutes of Health.

Dr. John C. Watson, of Alexandria, an Associate member of the D. C. Medical Society, has been elected President of the Virginia State Board of Medical Examiners. Dr. Watson has served as Vice President of the Board for the past 2 years. He is Chairman of the Department of Medicine at the Alexandria Hospital and Past President of the Alexandria City Medical Society.

Dr. David E. Price, an Associate member of the D. C. Medical Society, was appointed Deputy Director of the National Institutes of Health, effective July 1.

Dr. Joseph L. Johnson, Professor of Physiology at Howard University, is retiring from teaching after serving on the faculty since 1931. He was Dean of the College of Medicine from 1946 until 1955.

Membership

The following applicants for membership will be voted on at the meeting of the Executive Board, September 26, 1960.

For Active Membership

Ganka K. Benderev, University of Sofia (Bulgaria)—1943
Maurice A. Capone, Georgetown University—1953
Paul A. di Sant'Agnese, Columbia University—1948
Victor Schocken, George Washington University—1956
Milan M. Vuitch, University of Budapest (Hungary)—1939

For Associate Membership

Elisabeth K. Kalandros, University of Vienna (Austria)—1950
George M. Leiby, Vanderbilt University—1931
John W. Roark, Tulane University—1949
Vincent P. Sweeney, University of Glasgow (Scotland)—1953

For Resident-Intern Membership

Edward W. Walters, University of Cincinnati—1959

Recent changes in membership status:

Active to Associate

Murray M. Copeland
Louis E. Fettig
James G. Primm
Harold Sterling

Associate to Affiliate

James P. Hartley

Resigned
Active

Frederick W. Coe
Lena F. Edwards
John F. Nancarrow

Associate

Franklin D. Hendricks
Reginald Mitchell
Robert Nenno

Affiliate

Allen M. Ferry

Obituaries

ABRAHAM DEPUE BUTZ, M.D.

(1873–1960)

Dr. Abraham D. Butz, a Life member of the Medical Society of the District of Columbia, died, July 6, 1960, at his home in St. Petersburg Beach, Florida.

Dr. Butz was born in Northampton County, Pennsylvania, in 1873. He attended Lafayette College in Easton, Pa., and received his medical degree from Columbian (now George Washington) University in 1900. He was licensed to practice in the District of Columbia the same year.

Dr. Butz' avocation was football. During his college days at Lafayette he was a football player, and when he came to the District he organized the old Interior Department Team, which he managed and coached.

His membership in the Medical Association of the District of Columbia began in 1901 and continued in the Medical Society of D. C. after the two organizations merged. For many years he was a member of the American Medical Association. His fraternal organizations were the Myron Parker Masonic Lodge and the Almas Temple.

He is survived by his wife, Mrs. Sue Ellen Butz, of St. Petersburg Beach, and two daughters, Mrs. Sarah Zahn, of Washington, and Mrs. Susan Martindale, of San Antonio, Texas.

WILLIAM BAILEY SIMS, M.D.

(1893–1960)

Dr. William B. Sims, a general practitioner in the District of Columbia for 39 years, died July 29, 1960 in Halifax Community Hospital in Halifax, Virginia, after a year's illness. His Washington home was at 2100 Connecticut Avenue, N.W. Since he retired from practice in November 1959 he spent most of his time at Black Walnut Farm in Randolph, Va.

Dr. Sims was born, December 23, 1893, in Maxwalton, Va., to William B. and Annie Ruffin Sims. He attended the Episcopal High School in Alexandria, Va., and graduated in medicine from the University of Virginia in 1919. He was resident physician at the Protestant Episcopal Hospital in Philadelphia for a year following his graduation, and also served a residency at Philadelphia Hospital for Contagious Diseases.

Dr. Sims began his practice in Washington in 1920. His offices were last located at 1150 Connecticut Avenue, N.W. At one time he was associated with his uncle, the late Dr. Sterling Ruffin.

Dr. Sims had been a member of the Medical Society of the District of Columbia since 1921. He was also a member of the American Medical Association. His social organizations were the Chevy Chase Club and the Metropolitan Club.

Surviving him are his wife, Mrs. Eva Kibler Sims, and two sisters, Miss Jane R. Sims, of Halifax, and Mrs. Anne Wallerstein, of Richmond.

JACKSON THORNE MARLAND, B.S., M.D.

(1924–1960)

Dr. Jackson T. Marland, an internist in Washington for the past 10 years, died, July 20, at the Washington Hospital Center after a brief illness. He was one of the younger members of the D. C. Medical Society.

Dr. Marland was born, May 7, 1924, in Washington, D. C., to Dr. and Mrs. Albert E. Marland, who survive him. He attended Sidwell Friends School and graduated *cum laude* from both Georgetown University and Georgetown University School of Medicine, receiving his medical degree in 1947. He interned at St. Luke's Hospital in New York City following graduation and served two residencies, one at Georgetown Hospital and the other at Gallinger (now D. C. General) Hospital.

Dr. Marland was elected to Active membership in the Medical Society of the District of Columbia in 1951. He was a member of St. David's Episcopal Church.

Surviving Dr. Marland, in addition to his parents, are his wife, Mrs. Emily S. Marland, and two young sons, Albert M. and Jackson T., Jr., of the home address, 5404 Albemarle Street, N.W., and a brother, Dr. Albert E. Marland, Jr., also of Washington and, like their father, a member of the D. C. Medical Society.

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(*Continued from page 490*)

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Correspondence—Lebensohn

(*Continued from page 521*)

As a result of this Conference, a resolution was unanimously adopted to appoint a permanent committee to study these problems in greater detail over a longer period of time. It is anticipated that our Committee will be consulted in future deliberations.

It is significant that this is the first time that psychiatrists whose chief interest is private practice and extramural psychiatry are being brought into a community problem of such major importance.

The Grievance Committee—Alfaro

(*Continued from page 502*)

mended for their integrity, their tact, and their judicious and impartial handling of the cases brought before them. There is no inquisition, or persecution, but neither is there a whitewashing of cases in which there is a justifiable grievance.

Victor R. Alfaro.

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[1] Clinical reports in files of A. H. Robins Co., Inc., from: J. Allen, Madison, Wisc., B. Billow, New York, N. Y., B. Decker, Richmond, Va., C. Freeman, Jr., Augusta, Ga., R. B. Gordon, New York, N. Y., J. E. Holmblad, Schenectady, N. Y., L. Levy, New York, N. Y., N. LoBue, Chicago Heights, Ill., H. Nachman, Richmond, Va., A. Poindexter, Los Angeles, Cal., E. Rogers, Brooklyn, N. Y., K. H. Strong, Fairfield, Ia.

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BOOK REVIEWS

Clinical Management of Behavior Disorders in Children, 2nd ed. Harry Bakwin, M.D., and Ruth Morris Bakwin, M.D. Price, $11.00. Pp. 597, illustrated. Philadelphia: Saunders, 1960.

This book can be added very advantageously to the library of those physicians concerned with the care of children. Pediatricians and generalists will find it very helpful since it presents in a lucid style comprehensive coverage of all facets and varieties of children's behavior disorders. Perhaps some psychiatrists will find it wanting in the detailed discussion they might expect of the complex background of these disorders. However, those concerned with the everyday care of children (and apparently the book is directed to them mainly) should be more than satisfied with the presentations of the factors operating for their prevention and treatment.

Common enough disorders, like juvenile delinquency, tics, obesity, enuresis, etc., are made stimulating again and even more challenging by the Bakwins. Other day-to-day problems present in any busy office or clinic practice are discussed in a fashion which facilitates treatment by the practitioner himself in an encouraging number of instances. It is good to have confirmed one's belief that many deviations in the behavior of children can be taken care of by the interested physician himself. Their point is well made that many disorders are almost normal in their abnormality. There are too many subjects discussed excellently to list them all. A very few we all recognize are disabilities of speech, spelling and arithmetic, anger, cruelty, shyness, aggression, lying, stealing, and running away.

This book is easy to read, in comfortably sized print, 2 columns to a page in newspaper style. It is well organized, with ample references both at the end of each subject discussed as well as at the end of the book, together with an author index. There are interesting sections on Growth and Development, The Psychologic Care of the Infant and Child, as well as sections on diagnosis and treatment.

This reviewer regrets the paucity of actual case reports, although some might consider this an advantage in making the discussions more precise and self-contained. Abundant reference is made to reports of leading investigators of the subject discussed. Occasionally their conclusions are at opposite poles, which is a little disconcerting to the "do-it-yourself" psychiatrist.

A. M. Cohen, M.D.

A Doctor in Many Lands. The Autobiography of Aldo Castellani. Aldo Castellani. Price, $4.95. Pp. 359. Garden City, N.Y.: Doubleday, 1960.

Few physicians have ranged as far and wide over the earth as Dr. Castellani. Only a select group in the profession have met or have been associated with as many important world figures. His adventures, which he recounts in a highly interesting manner, are largely concerned with his medical practice and research in tropical medicine. All in all, he tells a colorful story which will hold the reader's interest throughout.

A subtitle for this book might have been "Famous People Who Were My Patients." Dr. Castellani takes obvious relish in telling about them and his successes in treating their ills. Much of the book is devoted to the services which he has performed for the royalty of Italy and other countries. There is little doubt that they are his favorite patients.

T. W.

Textbook of Otolaryngology. David D. DeWeese, M.D., and William H. Saunders, M.D. Price, $8.75. Pp. 464, with 354 illustrations. St. Louis: Mosby, 1960.

Reading and re-reading this fine new textbook of otolaryngology has been a very delightful and informative experience for your reviewer. Although designed primarily for the medical student and the general practitioner, the otolaryngologist will find this text highly practical and useful. The authors have written in delightful prose, a refreshing departure from the usual didactic manner of most textbooks. They present the practical anatomy of each part under discussion, and then proceed to discuss the means of examining these parts, taking great pains to point out the "usual mistakes" made by most men. In this way the authors are able to present very methodical and well-organized methods of approach in examination and treatment by the practitioner which will insure his patient better results than were heretofore obtainable.

Several hundreds of diagrams, actual photographs of procedures, and pictures of instruments used in these procedures enhance the fine prose used by the authors in the discussion of these procedures. Audiometry is excellently presented. The chapter on epistaxis is beau-

(Continued on page 48)

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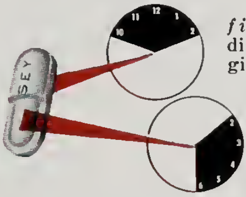

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Book Reviews

(*Continued from page 46*)

tifully done and will make the practitioner's handling of these cases more effective. The chapter on sinusitis will dispel many previous disillusionments held by the practitioner, and enable him to effectively cope with this type of pathology. The more recent advances in the surgical treatment of conductive deafness are expertly and beautifully presented, namely: myringoplasty, tympanoplasty, and stapes mobilization. The authors discuss many of the more difficult problems of otolaryngology such as tinnitus, dizziness, vertigo, facial nerve disorders, salivary gland diseases, and labyrinthitis in fine, understandable prose which will invite the attention of the practitioner more often to those areas.

I congratulate Dr. DeWeese and Dr. Saunders on an excellent, refreshing textbook of otolaryngology, and I sincerely urge all medical students, practitioners of general medicine, and all of my otolaryngologic colleagues to acquire this fine volume. Soon after its acquisition, the writer of this review guarantees it will show the genuine marks of constant usage accorded to all masterpieces.

Seymour Itscoitz, M.D.

The Seven Ages of Woman. Elizabeth Parker, M.D. Price, $6.50. Pp. 596. Baltimore: Johns Hopkins Press, 1960.

This is a delightful book written for and about women, simple enough for the layman to understand yet complete and authoritative enough to be a medical text. Dr. Parker's style is enjoyable and her presentation so heart-warming and sincere that the book ranks with the best-sellers in appeal.

She outlines the wonderful mechanism of the female body and includes a dissertation on endocrinology that would do credit to a medical school curriculum. Woman's perennial problem of obesity comes in for a realistic discussion. Factors leading to the age of maturity, the era of psychology, the psychosomatic concept, premenstrual tension, and the phobia of mental illness are treated in a manner that will help any physician and the woman herself.

That part of the book dealing with marriage, motherhood and the miracle of birth may lack interest to the informed physician. The careful elucidation of the anatomy, physiology and psychology of reproduction leaves the reader no doubts. A mature approach is given to prenatal care, childbirth and the puerperium. Natural childbirth is treated with rare understanding. The important part of birth, this rich experience of love and procreation, is the healthy, normal baby, not the fact that the mother was conscious of the mechanism of its entrance into the world.

The chapters on abortion, ectopic pregnancy, unwanted pregnancy, and infertility read like a short story as the author weaves personal glimpes from her practice into the narrative. College embryology comes to life in the chapter, "Journey to Babyhood." Congenital anomalies are relegated to their proper place in the scheme of development.

In "Youth Not So Carefree," Dr. Parker's handling of the importance of sex, the trend toward early marriage, and the dire need for education of our youth reveals an astute insight into the teen-age problems of today. Most delightful of all are the chapters covering the transition from maturity to old age—the menopause, its physiology and therapy, the psychology of its tranquil and graceful acceptance, and finally the transition to an age of serenity. This final age has many obstacles—tumors, cancer, arthritis, heart disease, all of which are touched upon in an authoritative manner. It also has many goals—to belong, to be healthy, and to be serene.

Catherine Johnson, M.D.

Ciba Foundation Symposium Jointly with The International Union of Biological Sciences on Biochemistry of Human Genetics. G. E. W. Wolstenholme, O.B.E., M.A., M.B., M.R.C.P., and Cecilia M. O'Connor, B.Sc., Editors for the Ciba Foundation. Price, $9.50. Pp. 347, with 60 illustrations. Boston: Little, 1959.

This symposium was attended by 29 experts whose individual contributions are authoritative, and which, in the aggregate, offer persuasive proof that the emphasis in genetic studies in man has shifted from the mathematical approach to the biochemical. Chromotographic and electrophoretic analysis of body fluids is now standard technic in human genetic research. Tissue culture of human cells is presented as another advance.

The symposium was further devoted to synthesis of proteins and other macromolecules. Immuno-chemical aspects of the products of the human blood group genes are discussed. The genetics of abnormal human haemoglobins and primaquine sensitivity of erythrocytes are further scrutinized.

The biochemical genetics of cholinestorase types and galactosemia are presented.

This compilation offers an opportunity for understanding the current developments in the rapidly expanding universe of biochemical genetics.

Harold Stevens, M.D.

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Meningismus: A Presenting Sign in Ruptured Appendicitis of Infancy

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MENINGISMUS as a symptom of disease presents many interesting aspects. In reviewing standard texts of surgery and pediatrics, we have found mention of its relationship to upper respiratory and pulmonary infections but none to inflammatory conditions of the abdomen.

Sahs[1] states, "Meningismus is characterized by signs and symptoms of meningeal irritation, such as headache, stiffness of neck, and Kernig's sign, and occasionally convulsions and coma." This definition with its wide inclusion of cerebral meningeal signs and symptoms leads to confusion, and is not an accurate definition. Yater[2] states, "The head is retracted as in meningitis." This best expresses the idea of meningism. It is characterized by a spasm of the extensor muscles of the neck, with or without an associated increase in spinal fluid pressure. With this simple definition, we can better explain and understand why meningismus should be present in various diseases.

Several other factors are to be considered. It is, in most instances, a sign found in early childhood, and is usually associated with an acute febrile illness. In meningitis, therefore, meningismus is a sign which makes up part of the syndrome, other symptoms being nausea, vomiting, convulsions, and headache.

The etiology of meningismus is still not certain. Two main theories are proposed and both in all probability contribute in part. The first is that in acute febrile illness there is a dilution of the blood which renders it hypotonic to the cerebral spinal fluid. This results in an increased cerebrospinal fluid volume and corresponding pressure. On the other hand, fever often causes dehydration, which may reduce spinal fluid volume, and this in some way may cause meningismus. Freyberg[3] gave a neuroanatomic explanation. The spinal nerve sends a recurrent sensory branch to the meninges. Thus, in meningitis, irritation of these nerve endings results in a reflex spasm of the back muscles through the posterior primary division of the spinal nerve. The same explanation applies to inflammatory processes in other parts of the body. The parietal pleura and peritoneum receive their sensory innervation from the anterior primary division of the spinal nerve. Inflammatory changes about these endings in a like manner cause a reflex spasm of the extensor muscles of the back. This neurologic explanation is well recognized in adults when pathologic conditions of the abdomen or chest first present signs of backache. The most common entities which give this picture in the infant are lobar pneumonia, acute pyelonephritis, tonsillitis, retropharyngeal abscess, and the acute surgical abdomen, including acute appendicitis.

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There has been so little discussion of the diagnosis of appendicitis in infants that today we find our highest mortality from this disease in our youngest age group. Two main factors contribute to this problem, the infrequent occurrence below the age of 2 and the difficulty of diagnosis.

The incidence of appendicitis during the first year of life is placed at 0.1 to 0.2 per cent of all cases of appendicitis below 12 years of age. During the second year of life it occurs 5 to 10 times more frequently. Excellent reviews of the literature have recently been published by Greene,[4] Snyder,[5] Shinaberger,[6] and Walker.[7] It is depressing to find that so many of the reports concern the findings at postmortem examinations.

The first step in lowering the mortality is recognition that the disease does occur in infants. Usually the patient arrives at the hospital in moribund condition after prolonged observation by the family physician or parents. Entertainment of the diagnosis will lead to earlier surgical treatment and the consequent reduction of mortality.

Diagnosis itself is difficult. However, it is made by deduction and elimination. A routine order of procedure will lead to the correct diagnosis in most instances. To do this, we must first recognize the clinical picture in the infant.

The young child, in general, has one clinical pattern for the most acute inflammatory processes of the abdomen or chest. The infant patient is irritable. Fever of greater or lesser degree is present. Gastrointestinal irritation is manifested by vomiting and distention. Obstipation or diarrhea may be present. In a great many of these patients, findings of upper respiratory infection precede all other symptoms. Finally, as the process develops, signs of meningismus become apparent. Inflammatory processes of the pleural and peritoneal spaces of the infant at one stage or another mimic meningitis. The younger the infant, the more typical the picture of meningitis. Differential diagnosis then becomes one of meningismus. This may or may not be accompanied by positive Kernig's and Brudzinski's signs and even opisthotonos.

As the child grows older and begins selective development, the clinical picture more closely resembles that of the adult. Signs and symptoms are more directed to the primary site of disease. Laboratory studies are essential for a correct diagnosis. These should include urinalysis, intravenous pyelogram, chest X-ray film, spinal fluid analysis, and an X-ray film of the abdomen.

REPORT OF CASES

Case 1. D. M. P., a 13-month-old white male infant, was admitted to the Pediatric Service of Providence Hospital with a chief complaint by the mother of vomiting and increasing fever for 48 hours. Twenty-four hours prior to admission the temperature was 104°F. Vomiting persisted, and the child was quite irritable. The child was seen by a private physician, and a diagnosis of acute tonsillitis was made. The child was then started on penicillin therapy. On the day of admission the child was unimproved, with a temperature of 103°F. He was again seen by the private physician, who noted nuchal rigidity. There had been no bowel movement since the onset of illness. The patient was admitted to Providence Hospital with a diagnosis of tonsillitis and possible meningitis. The past history was noncontributory.

On admission the examination revealed a critically ill male child, with a temperature of 101°F, a pulse rate of 140, and respiratory rate of 40. The tonsils were enlarged and moderately inflamed, the skin was dry and of poor turgor; and there were bilateral cervical adenopathy, 3-plus nuchal rigidity of the neck, and sinus tachycardia. The abdomen was 2-plus distended, and the bowel sounds were hypoactive, with tympany to percussion. No masses were felt. Kernig's and Brudzinski's signs were negative. The hematocrit was 35; the white blood cells numbered 10,200 with 63 per cent segmented forms and 12 per cent band forms, and the urine showed 4-plus albumin, 4-plus acetone and 4 or 5 white blood cells.

Reëvaluation of the patient now included ileus secondary to infection and ruptured appendix. A pediatric consultation was requested. A spinal tap was done which revealed clear fluid with 1 red blood cell and 2 segmented white blood cells. A culture was negative after 24 hours. An X-ray film of the chest was normal. An X-ray film of the abdomen revealed dilated loops of small bowel with associated fluid levels. There were multiple fragmented calcifications in the right lower quadrant consistent with a coprolith.

After an initial period of hydration the patient was taken to the operating room. At surgery a ruptured retrocecal appendix was found containing several fecaliths. No attempt was made to remove the appendix. A drain was placed in the right gutter and the patient returned to his room. Cultures were taken of the peritoneal fluid which revealed *E. coli*. The patient was carried on intravenous fluids, Chloromycetin and gastric suction for 48 hours. At that time he had a spontaneous bowel movement and was placed on a liquid diet. He was discharged 7 days after surgery. Three months later the patient was admitted and underwent an elective appendectomy with uneventful recovery.

Case 2. P. T., a 4-year-old white male, was admitted to the Pediatric Service with a chief complaint by the mother of stomach cramps for 5 days and diarrhea. The pain decreased over the first 2 days. Forty-eight hours before admission the patient began to vomit and developed a low-grade fever. He was seen by the family physician on the day prior to admission. No localizing signs could be found, and a diagnosis of gastroenteritis was entertained. On the day of admission the temperature rose to 103°F, and the patient developed severe abdominal pain and diarrhea. He was again seen by the family physician, who noted 4-plus nuchal rigidity, mild icterus of the skin and sclerae, and a board-like abdomen. The patient was admitted to the isolation ward with a differential diagnosis of acute hepatitis, meningitis, and an acute surgical abdomen.

Physical examination revealed the child to be critically ill and highly irritable, with a pulse rate of 120, the blood pressure 118/70, the respiratory rate 25, and the temperature 103°F. The skin was warm and of poor turgor. There was mild icterus of the skin and sclerae. The neck showed 4-plus nuchal rigidity with severe abdominal pain on attempts at flexion. The abdomen was rigid and showed mild distention. There was extreme tenderness to palpation, with no masses felt. Bowel sounds were absent. Rectal examination showed tenderness throughout. The hematocrit was 43, the white blood cells numbered 5,900 with 52 per cent segmented forms and 4 per cent band forms, and the urine showed 1-plus albumin and 2-plus sugar.

Impression after surgical consultation was that of ruptured appendicitis. After a period of hydration the child was taken to surgery. At operation a ruptured appendix with diffuse purulent peritonitis was encountered. The appendix was removed and the child returned from the operating room. During the postoperative course the child had an immediate episode of moderately severe paralytic ileus. This responded to the usual conservative measures of gastric suction, intravenous fluids, and antibiotics. The child was discharged 7 days following surgery. As the child's postoperative condition improved the jaundice disappeared.

The first case reported falls into the expected age group. In retrospect, the inflammation of the tonsils with cervical adenopathy which was noted preoperatively was not of a severe enough degree to cause the clinical symptoms of the patient. The tonsils were hypertrophied and there was reddening of the overlying mucous membrane and pharynx, but there were no areas of suppuration.

The second patient who was just recently seen at the clinic was unusual in that the clinical picture was present at the age of 4 years. Ordinarily one would not expect to find such a typical infantile reaction in a child of this age. However, the preponderance of findings pointed to the abdomen as the site of trouble. This goes along with the increase in growth and development of the older child. The jaundice might be explained on the basis of a cholangitis secondary to the severe peritonitis.

(Continued on page 599)

The Incidence and Significance of Bacteriuria in Female Diabetics*

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KNOWLEDGE OF THE PROBLEM of urinary-tract infections in diabetics is old, but the means of effecting a complete and permanent eradication of these infections has as yet remained undiscovered.

Studies by others have indicated the necessity for careful survey to determine the presence of such infections in diabetics and the importance of chemotherapy, adequate control of the diabetes, corrective genitourinary surgery and follow-up control of recurrent infections.[1–7]

MATERIALS AND METHODS

This study is concerned with the incidence of urinary-tract infections in female diabetics at Freedmen's Hospital. In particular, the occurrence of symptomatic pyelonephritis, necrotizing renal papillitis, and intercapillary glomerulosclerosis in these patients was of interest.

Eighty-five diabetic female patients from the Diabetic Clinic were used as test subjects and 141 female nondiabetic patients from the General Medical Clinic, Cardiac Clinic, Prenatal Clinic, and the Female Medical Ward were used as control subjects.

During the period from July to November, 1953 a catheterized specimen of urine was obtained from each control and test subject. Cultures of the urine were done aerobically on brain-heart infusion, blood-agar plates, eosin-methylene blue agar plates, and in brain-heart infusion broth. The urine sediment was examined for the presence of leukocytes and a Gram stain was done to indicate organisms present in the sediment.

No therapy for infection was instituted at the time on patients found to have bacteriuria. During the period, October, 1956 through January, 1957 these patients were again surveyed for evidences of deterioration of renal function, if any, which had occurred.

RESULTS

Urine cultures done on 85 female diabetics yielded 38 positive cultures, an incidence of 44.7 per cent. Fifty female diabetics had white blood cells in the urinary sediment as follows: 8 had many white blood cells (including clumps) per high power field, 5 had a moderate number of white blood cells (including clumps) per high power field, and 37 had occasional to few white blood cells per high power field. One patient had no record of white blood cells in the sediment but showed many Gram-negative bacilli on direct smear. No white blood cells were found in the urinary sediment of 34 patients.

Correlation of white blood cells in the urinary sediment and positive urine cultures was as follows: 8 or 100 per cent of patients with many white blood cells in the urinary sediment had positive urine cultures, 4 or 85 per cent of pa-

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*This study was supported by grants from the Abbott Laboratories, North Chicago, Illinois, and the Eli Lilly and Company, Indianapolis, Indiana.

tients with a moderate number of white blood cells in the urinary sediment had positive urine cultures, 18 or 48 per cent of patients with occasional to few white blood cells in the urinary sediment had positive urine cultures, and 7 or 20.5 per cent of patients with no white blood cells in the urinary sediment had positive cultures.

Correlation of white blood cells in the urinary sediment and negative urine cultures showed that no patients with many white blood cells in the urinary sediment had negative cultures of the urine. One or 20 per cent of the patients with a moderate number of white blood cells in the urinary sediment had a negative urine culture. Nineteen or 52 per cent of patients with occasional to few white blood cells per high power field in the urinary sediment had negative cultures of the urine. Twenty-seven or 79.5 per cent of patients with no white blood cells in the urinary sediment had negative urine cultures.

Twenty-five patients had albuminuria and white blood cells in the urinary sediment. The degree of albuminuria was a trace in 20 cases and 1 plus in 5. Fifteen patients had albuminuria, positive urine cultures, and leukocytes in the urine sediment. Six patients had albuminuria, glycosuria, positive urine cultures, and leukocytes in the urinary sediment. Four patients had albuminuria, glycosuria, leukocytes in the urinary sediment, and negative urine cultures. Thirteen patients had only white blood cells in the urinary sediment and positive urine cultures, and 6 having only white blood cells in the urinary sediment had negative urine cultures. Five patients with no albuminuria, glycosuria, or white blood cells in the urinary sediment had positive urine cultures. One patient with albuminuria alone had a positive urine culture.

A total of 34 patients, 38.8 per cent, had albuminuria, and 16 of these had positive urine cultures. Seventeen of those with albuminuria had negative urine cultures.

The degree of albuminuria in those with positive cultures was a trace in 13 patients and 1 plus in 3. The degree of albuminuria in those with negative cultures was a trace in 13 cases, 1 plus in 2, and 3 plus in 2.

Twenty-three patients or 27 per cent had glycosuria. Eleven of these patients had positive urine cultures. Seven patients had glycosuria and albuminuria and positive urine cultures. One patient had a positive urine culture and glycosuria without albuminuria or pus cells in the urinary sediment. Three patients had a positive urine culture and glycosuria, pus cells in the urine sediment, and no albuminuria. Twelve patients with glycosuria had negative urine cultures.

Correlation of types of organisms found in the urine with the number of pus cells in the urinary sediment revealed a total of 12 patients with *E. coli* on urine culture in 30 patients with few to many pus cells in the urine sediment. Organisms isolated from the urine of 38 diabetic females are shown in table 1.

TABLE 1

Organisms Isolated from the Urine in Female Diabetics

Organisms	No. Times Seen
E. coli	12
P. aeruginosa	1
A. aerogenes	5
Yeast-like organisms	3
B.M.C.	1
Diphtheroids	3
Lactobacilli	3
H. staphylococcus aureus	4
Nonhemolytic staphylococcus aureus	1
Proteus morgani	1
Enterococcus	3
Beta hemolytic streptococcus	2
B. subtilis	1
Gamma streptococcus	1
Clostridium	1

The average age of the diabetic subjects was 50.24 years, with the largest number in a single age range being 33 in the age range from 51 to 60 years. The incidence of bacteriuria, however, was greatest in the age range of 31 to 40 years, with 5 out of 6 patients having bacteriuria.

CONTROLS

A total of 143 patients served as control subjects. Seventy-four or 51.7 per cent of these subjects had positive urine cultures and 68 had negative urine cultures. No culture was recorded for 1 patient.

Sixty-one of these subjects had white blood cells in the urinary sediment. Four had many white blood cells per high-power field, 1 a moderate number of white blood cells per high-power field, and 56 had occasional to few white blood cells per high-power field. Eighty patients had no white blood cells in the urinary sediment.

Two patients with many white blood cells per high-power field, 1 with a moderate number of white blood cells per high-power field, and 34 patients with a few white blood cells per high-power field had positive urine cultures. Thirty-two patients with no white blood cells in the urinary sediment had positive urine cultures.

A total of 50 patients had albuminuria and of these 14 had white blood cells, albuminuria and positive urine cultures and 6 had white blood cells in the urinary sediment, albuminuria and negative urine cultures.

Eight control subjects had glycosuria. One had glycosuria, white blood cells and a positive urine culture, 2 had glycosuria alone and positive cultures, and 1 had glycosuria, albuminuria, white blood cells in the urinary sediment and a positive urine culture.

There were 3 patients with glycosuria and negative urine cultures and 5 with glycosuria and positive urine cultures. Twelve had albuminuria alone and positive urine cultures, and 14 had albuminuria alone and negative urine cultures. Sixteen patients without pyuria, glycosuria or albuminuria had positive urine cultures.

Table 2 lists the organisms found on culture of urine from control subjects.

The average age of the control subjects was 37.55 years, with the largest number in a single age range being 40 between the ages of 21 to 30 years. The incidence of bacteriuria was greatest between the ages of 10 to 30 years and 51 to 60 years. The greatest majority of these patients were attending the Prenatal Clinic and the Medical Clinic.

Twenty-six of the 85 diabetic subjects had blood nonprotein nitrogen values above normal between 1953 and 1956; one diabetic patient died with uremia in 1955. This patient had a negative urine culture in 1953. One patient was dead on arrival at the hospital in 1953. She had a negative urine culture and an NPN of 23 mg. However, she had a 3 plus albuminuria in 1953 and the diagnoses of diabetes mellitus, hypertensive cardiovascular disease with cardiomegaly, congestive heart failure, class iii C and aortic insufficiency. One patient had a diagnosis of Kimmelstiel-Wilson disease in 1956. She had hypertension, albuminuria, and diabetic retinopathy. In 1953 the urine culture on this patient was negative and she had a 3 plus albuminuria.

TABLE 2

Organisms Found on Culture in the Control Group

Organisms	No. Times Seen
A. aerogenes	2
E. coli	10
B. proteus	2
Alpha hemolytic streptococcus	8
Nonhemolytic staphylococcus aureus	4
Lactobacilli	3
Diphtheroids	9
Hemolytic staphylococcus aureus	20
Beta hemolytic streptococcus	2
Yeast-like organisms	11
Enterococcus	5
Streptococcus fecalis	1
Gamma streptococcus	1
Rough pneumococcus	1
Sarcina	1
B.M.C.	1
Paracolon bacillus	1
Staphylococcus albus	1

Of the 26 diabetic patients with elevated NPN values, 14 had positive urine cultures, 18 had albuminuria, and 9 had glycosuria. Four had albuminuria, glycosuria and positive urine cultures alone, 5 had albuminuria and positive urine cultures, 7 had albuminuria alone, 2 had glycosuria alone, and 4 had albuminuria and glycosuria.

Ten control subjects had elevated NPN values. Three of these had positive urine cultures and albuminuria, and 3 had albuminuria alone. No deaths were reported among the control subjects.

DISCUSSION

Of the female diabetic patients 44.7 per cent and of the female control patients 51.7 per cent had positive urine cultures. It is well known that a single positive urine culture does not establish the diagnosis of a urinary-tract infection. An attempt was therefore made to correlate the degree of pyuria with positive cultures. All diabetic patients with many white blood cells in the urinary sediment had positive urine cultures, and as the degree of pyuria decreased so did the percentage of positive urine cultures. In contrast to this, among the control group of patients 32 without pyuria had positive urine cultures and 37 with pyuria had positive urine cultures. Thirty-four of those with pyuria had only a few white blood cells per high-power field.

The high incidence of bacteriuria among the control patients might be explained on the basis of the large number of pregnant women in the group. The pregnant patients contributed 39 positive cultures to the overall total of 74 positive cultures. The remaining 35 positive cultures were distributed among patients from the Medical Clinic, Medical Ward, and Cardiac Clinic. The majority of those with bacteriuria among nonpregnant patients were above 50 years of age.

There was a higher incidence of elevation of the NPN among the diabetic subjects than among control subjects. The incidence of positive urine cultures and albuminuria was also higher among the diabetics with elevated NPN values than among the control group with elevation of the NPN. However, in both groups of patients with elevation of the NPN the incidence of albuminuria was greater than 50 per cent.

SUMMARY

There is a high incidence of bacteriuria among female patients. Both diabetic and nondiabetic patients with bacteriuria fell mainly into 2 groups, the pregnant and the group in the age range above 50 years of age, both groups being prone to urinary-tract infections.

There seems to be a definite correlation between the degree of pyuria and the incidence of bacteriuria among the diabetic subjects, with increasing incidence of bacteriuria and an increasing degree of pyuria. This was not true, however, for the nondiabetics, since the majority of those with bacteriuria had only a few pus cells in the urinary sediment.

The presence of albuminuria seems as significant as the presence of bacteriuria in the diabetic female. The presence of albuminuria in the nondiabetic female also seems more significant than bacteriuria as an indication of renal disease.

Eleven of 23 diabetic patients with glycosuria had positive urine cultures. Nine of the diabetic patients with elevation of the NPN had glycosuria.

There were 2 deaths recorded, and these were diabetics. Both of these patients had negative urine cultures and 3 plus albuminuria in 1953. One died with uremia in 1955, and the other was dead on arrival at the hospital in 1953. The latter had the diagnoses of hypertensive cardiovascular disease, congestive heart failure, and aortic insufficiency. One patient with a negative urine culture and 3-plus albuminuria in 1953 had the diagnosis of Kimmelstiel-Wilson disease made in 1956.

Twenty-six of the 38 diabetics with positive urine cultures had an elevation of the NPN. Ten of the 74 nondiabetics having positive urine cultures had an elevation of the NPN. It would seem that the presence of bacteriuria in the female diabetic is of more significance than in the female nondiabetic.

Bacteriuria with evidence of decreased renal function occurred more often in the diabetic than in the nondiabetic patients.

(Continued on page 599)

Group Processes and Decision-making

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THE PRINCIPAL INTEREST of a psychiatrist should not be so much that of "selling," or even of teaching psychiatry to other professional people, but, instead, of applying psychiatric skills and knowledge to commonplace human problems. Such an interest would be an appropriate one for all scientists to devote some of their energies to. The skills of psychiatry are most uniquely applicable to those problems which arise from relationships among people. One set of problems of concern to nearly all professionals is that of ordinary group processes. One type of group process which we are frequently concerned with is that of committee action. Since the job of a committee is generally that of making decisions or of establishing policy, it will be this aspect of group processes to which your attention is invited.

Today it has become the fashion of the times to rely on groups rather than on individuals for decisions. Although generally called "committees," such groups are also known as "boards of directors," "staffs," "congresses," "conferences," etc. There are few decisions made today in government, science, educational institutions, industry, etc. which fail to have the stamp of approval of some group. There is something uniquely American about the current trend toward group decision-making, since the parliamentary process is one which we led the way in developing and refining. In the past, however, outside of government, decisions tended to be made by individual leaders. Partly this was because of the relative scarcity of "experts," together with the high regard in which these "experts" were held. Today, in contrast, it is the rare person who does not regard himself as an expert in some area and competent in many. On the other hand, those experts who do qualify for some distinction are more likely to be disparaged than honored today. Furthermore, people in general have become more alert and sophisticated about the efforts of others to assume power and, therefore, more likely to join forces to prevent it. Still another factor instrumental in the abandonment of our former reliance on individual leaders is the fact that the greatly enhanced independence of individuals in our society has removed a lot of the necessity for individual leadership and the protection it affords. One of the prominent and not particularly desirable consequences of our current trend toward group action is the increasing demands for conformity which result. Correspondingly, and paradoxically, the very advances we have achieved in individual freedom and independence have brought about a society in which individualism itself is relegated to the background.

Although our society today relies heavily on group processes for making decisions, and all of us are required at times to participate in these groups, our education has generally been deficient in teaching us the mechanisms. Following are some random observations concerning these mechanisms. To a large extent, they are educated speculations rather than established facts. Validation of these points is handicapped by the fact that any one of them could be disproved by any group which wished to do so. They should be accepted as warnings and suggestions, therefore, and not as rules having any great certainty.

Characteristics of Group Decision-making

1. In the first place, the theoretical advantage of a group over an individual is that the combined thinking of many brains can be added up

to produce wiser decisions than a single one could produce. However, this is not as likely to happen as we might wish because, by the same token, we also add up many conflicting motivations in a group, and this tends to produce mediocre rather than superior decisions.

2. It seems that the best use to which a group can be put to make it superior to an individual is that of making comprehensive lists of data. It is well known that our own efforts to think of items to add to a list are greatly aided by items which other people have thought of, and because each individual in a group is likely to think along somewhat different lines, a more comprehensive list can be arrived at by a group than by an individual.

3. Perhaps the least effective use to which a group can be put is that of making policy. Generally, policy is something which, to be meaningful, must have one basic clear-cut principle or coherent set of principles as its foundation. Because of the differing motivations within a group, policy decisions tend to reflect different principles and therefore make for inconsistencies, which are the opposite of what we want in policy formulation.

4. Group decisions are most effectively arrived at when they are reduced to simple "yes" or "no" votes on recommendations made by individuals. When the group attempts to arrive at its own recommendations to vote on, they are likely to become so amended that they lose coherence.

5. Formal parliamentary procedure or some simplified modification of it is valuable when wisely used, even with small groups. With good parliamentary procedure in operation the role of the leader becomes that of a traffic policeman who keeps traffic flowing smoothly and in the right direction. Without such procedure, or some reasonable substitute, there is a marked tendency for the group to become deadlocked on minor issues; that is, traffic jams are created. The formality of the procedure also tends to add a note of dignity and responsibility which helps curb recklessness.

6. It is usually productive of inefficiency if a committee meeting is used as a forum to present all the information on which decisions are to be made. Instead, it usually works better if the information is made available for study beforehand and the meeting is used to vote on recommendations formulated by members on the basis of the information. If major items of information become available only during the meeting, it often pays to postpone decisions until either individuals or subcommittees can find the time to frame new recommendations on the basis of the new information. Otherwise, group action tends to become deadlocked or hasty compromises are made which may not reflect the best efforts of the group. These situations are partly brought about by the fact that many people are unwilling to make up their minds on an issue in public or when "on the spot," and, to avoid committing themselves, are likely to raise all kinds of objections which slow down or prevent the decision-making.

7. Committees tend to function differently when, on the one hand, they are made up of people who are well acquainted with each other, and when, on the other hand, they are strangers. In general, individuals are more likely to expose their negative thinking in front of strangers than their positive thinking. Criticisms, precautionary warnings, pointing out obstacles, etc., all seem safer to express in facing strangers than do positive assertions which might be ridiculed. Unless the objective of the committee is that of fault-finding it usually pays to find ways by which the members get acquainted with each other before engaging in committee business.

8. The number 8 frequently stands out as the optimum size for good committee work. It seems that it is not until we get about 8 people together that we succeed in getting a good balancing of forces and the emergence of good leadership. Smaller committees tend to be lazy and let the chairman do all of the work, thus making the work a one-man production. Larger numbers tend to become divisive and to foster the development of powerful inner cliques.

9. Committees seem to function better when seated about a round table with no one individual occupying a very conspicuous position. The round-table arrangement seems not only to enhance the sense of equality but also to afford each member a better chance to detect the emotional expressions of the other members, assisting his assessment of how his remarks are being received. Furthermore, a round table seems to result in more people paying attention to what is going on and prevents anyone from being overlooked.

10. Although, perhaps, the best way for an individual to put his thoughts across to a group is through his standing up and facing a seated group, this is probably the poorest way of obtaining group participation and an almost impossible way of obtaining effective group action. This and the latter 2 points are probably important factors in bringing about the working organization of our Federal Congress. The important work of Congress is not carried out on the floor of the House or Senate but in the committee rooms.

11. Our typical American regard for the rights of minorities, or sympathy for the underdog, coupled with our tendency to oppose the "system," the "administration," or the "majority," plus our readiness to disparage anyone who stands out as a conspicuous success all bring out another dilemma of group processes. Any group, large or small, is very likely to contain a "devil's advocate," who leads the opposition to any recommendation being made. More often than not, this person is using opposition as a way of exerting his own power and not as a genuine way of presenting another point of view. As long as he remains adamant in his negative position our soft-hearted American nature is likely to paralyze the action of the group. Europeans do not seem to get into this kind of a trap so readily. Many committees have been made completely ineffective because of the reluctance of the members to override the objections of one member. Americans prefer that people compromise in a direction which tends to reach agreement. If a member refuses to compromise, the group action may grind to a halt, or, strange to say, the majority will adopt the opposing point of view only because the former is more willing to compromise than the latter.

12. It has been said that it is typical of a group of Americans, all having very different points of view, to come to the same decision in a committee, whereas a similar group of Europeans who are more prone to have the same point of view, nevertheless, are more likely to disagree. To the extent to which this caricature is correct, it represents the American tradition to govern through the process of balancing, through agreeable compromise, equally powerful forces. European groups, in contrast, are very likely to be made up of members having the same orientation, and within the groups the dominant interest is likely to be that of struggling for control, thus breeding disagreement. The principle of "agreement at all costs," which is so dominant in American methods, strongly affects the way in which committees work and must be taken into account in order to reap the advantages of the principle and to minimize the disadvantages. When it is expedient that some decision be arrived at, this principle is an advantageous one, but when it is necessary to arrive at the best decision, it may turn out to be a handicap.

13. A group can also fail to work effectively when its members do not tacitly accept the necessity of abiding by the group's decision even if they disagree with it. To deserve this acceptance the committee must restrict its decisions to those which give due recognition to the rights of the opposing minority. Without this mutual acceptance it is often unwise to rely on group processes for decision or policy formulation. This is so, of course, simply because individuals cannot be expected to trust the group decision unless they feel it is safe to do so, and their feeling of safety will be dependent upon what they expect of the group in respect to recognition of individual rights or wishes.

14. Although the trend toward group action seems to threaten individualism today, there would appear to be no insurmountable obstacles or any philosophical contradictions inherent in group action which makes this inevitable. How individualism can be protected and encouraged in a group is a problem which can be solved if the group is aware of it and uses its group ingenuity to find solutions. One approach which offers promise is for the group to adopt an experimental attitude toward its work, wherein decisions become plans to conduct more than one type of experiment, allowing opportunity for individual or minority ideas to be tried out as well as those which are supported by the majority. To achieve this, it is often necessary to overcome the tendency of the group to look upon its decisions as being final.

15. Organized groups tend to seek ways of perpetuating themselves, even in the absence of enthusiasm or coöperation, and even after their function has been fulfilled. Often, this is due to the reluctance of the members to terminate the prestige of being affiliated with the group. In order to prevent the waste which can result from the unnecessary prolongation of group organization this danger must be foreseen and ways devised to circumvent it in advance.

16. It usually facilitates committee work if the major problems are broken up into a number of different questions to be acted upon separately and in order. The first question could be a general principle or objective about which it can be reasonably certain that all will agree. Subsequent questions would then be made successively less general and more specific, leading toward those areas where the most disagreement can be anticipated. The advantage of this approach is that of getting the group to commit itself as much as possible on points of general agreement, so that points of disagreement become less major issues and less likely to lead to a paralysis of action.

17. When, as frequently happens, the disadvantages of group action dominate over the advantages inherent in this way of making decisions, there is a strong tendency for group decisions to assume a kind of uniform, stereotyped character indistinguishable from others. The standardized quality which results often has the effect of attracting little notice or respect. This result often arises from the "homogenization" of differing opinions into a blend which has no distinguishing features. Very often a committee will seek to attract attention to its decisions or recommendations by exaggerating the importance of the subject. Although this device would seem to have a good chance of working, it has become such a standardized method that it loses its effectiveness simply by having been done so often. An example of how this device is often used was discovered recently when a particular committee report was traced back to its ultimate origin. In this case the report originated with an individual research investigator but became unrecognizably altered as it progressed upward through committee channels, each committee adding its own flavor to the report. This example might be called "The Progress of a Progress Report":

Original report from the investigator. "This study has yielded completely negative results. Recommend it be abandoned."

Report by the project committee. "This study has met with some unforeseen obstacles, but it is believed that they could be overcome with a little more study. Recommend that $4,000 be added to the budget to hire an additional technician."

Report as passed on by the steering committee. "This study has disclosed some very challenging problems which need further investigation. Recommend that $20,000 be added to the budget for expansion of time and scope of the research."

Report by the research review committee. "There is no question but that this study is one of the most worthwhile and promising fields of research uncovered in several years. Although difficult problems stand in the way of immediate

(Continued on page 600)

Retrosternal Dislocation of the Clavicle

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To make the correct diagnosis of this uncommon and sometimes puzzling condition one needs a high index of suspicion. Roentgenograms are not helpful unless a good view of the joint is obtained, and this is not possible in all individuals.[1]

Physical examination is diagnostic only if the patient presents himself before the onset of swelling, which usually masks the pathognomonic signs found on palpation. However, in spite of these difficulties, early diagnosis is mandatory because of severe complications such as laceration of the trachea and/or great vessels which have been reported.

Report of Cases

Case 1. On November 13, 1957 a 12-year-old boy fell down several steps, landing on the posterior aspect of his right shoulder. He experienced an immediate feeling of burning and numbness in the region of the sternoclavicular joint. On admission to the hospital 8 hours later his right shoulder was held in a shrugged position. Tenderness was present over the sternoclavicular joint area. Swelling masked the usual prominence of the medial end of the clavicle. Roentgenograms revealed retrosternal displacement of the clavicle. Ten hours after injury closed reduction was successfully accomplished. A plaster figure-of-eight was then applied for 3 weeks. Two years later the patient exhibited a normal range of joint motion. The roentgenograms demonstrated normal position of the sternoclavicular joints.

Case 2. On November 24, 1957 a 9-year-old boy was coasting downhill on a wagon when a playmate jumped on his back. The wagon overturned and the patient landed on his right shoulder. On admission to the hospital 12 hours later there was tenderness over the right sternoclavicular joint and obvious swelling over the right anterior portion of the chest wall. Roentgenograms demonstrated right retrosternal dislocation of the clavicle. Closed reduction was completed 14 hours after injury and support was maintained by a plaster figure-of-eight. A 2-year follow-up examination showed a normal range of joint motion and normal roentgenograms.

Case 3. On February 2, 1958 an 11-year-old boy was struck from behind over the left shoulder with a heavy piece of wood. Seventeen hours later he appeared at the emergency room complaining of inability to breathe when his left shoulder was brought forward. Swelling and discoloration obliterated the normal prominence of the medial end of the clavicle. Roentgenograms revealed retrosternal displacement of the clavicle. Eighteen hours after injury closed manipulation returned the medial end of the clavicle to its normal position. A plaster yoke was maintained for 3 weeks. One year later the patient exhibited normal range of joint motion and the roentgenograms were normal.

Discussion

Retrosternal dislocation of the clavicle was first reported in 1830 by Sir Astley Cooper,[2] but little has been written about it in the literature because of its relative rarity. Thirty-five cases have been reported in the literature up to 1949[3]; subsequently 15 were added.

Berkhina[4] stated that a fractured clavicle is 12 times more common than a dislocation and an acromioclavicular dislocation 4 times more common than a dislocation of the sternal end. Therefore, retrosternal displacement occurs in less than 0.5 per cent of all dislocations.[5]

The mechanism of injury in all of our cases was an indirect force exerted forward and downward on the posterolateral aspect of the shoulder, the shoulder itself being in a forward position. Previous authors[6, 7] have described another mechanism for injury—that of a direct force exerted inward and downward against the sternal end of the clavicle. This occurs most often in association with auto accidents or athletic mishaps.

A brief discussion of the anatomy of this region may help to understand the problem better. The sternoclavicular joint is the only articulation between the shoulder girdle and the trunk. The moderately enlarged sternal end of the clavicle articulates in the socket formed by the saddle-shaped facet at the upper angle of the manubrium and adjacent part of the first costal cartilage. The end of the clavicle, however, rises above the manubrium. Although these two make an ill fit, a strong thick articular disc of fibrocartilage divides the joint cavity in two and thus overcomes the incongruities of their surfaces. This disc functions chiefly to prevent medial displacement of the clavicle because of its attachment to the clavicle above and the first costal cartilage below.[8]

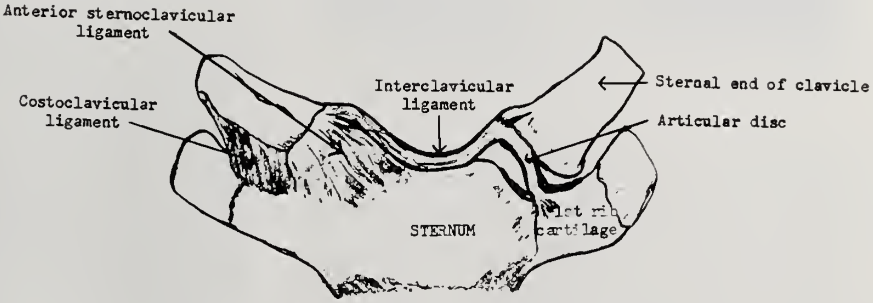

FIG. 1. Anatomy of the sternoclavicular joint.

Strong anterior and posterior sternoclavicular ligaments attaching to the margin of the disc further strengthen this joint. The costoclavicular (rhomboid) ligament passes from the first costal cartilage to a rough impression below the sternal end of the clavicle. It becomes taut when the arm is protracted or lifted above the head. It therefore limits upward excursion of the sternal end of the clavicle (figure 1).

Although the joint is palpable and apparently subcutaneous, it is in reality crossed anteriorly by the flat tendon of the sternomastoid muscle, posteriorly by the sternohyoid and sternothyroid muscles, and by the subclavius muscle belly below, all of which offer additional reinforcement.[9]

Study of biomechanical factors active at this joint discloses that movements at the sternoclavicular joint allow the scapula to choose its own position, forward, backward, upward or downward, so long as it keeps its distance from the sternoclavicular articulation. It also allows the clavicle to undergo the rotation which is essential for the elevation of the arm.

Elevation of the arm is accompanied by elevation of the clavicle at the sternoclavicular joint. During the first 90 degrees of elevation there are 4 degrees of elevation of the clavicle for every 10 degrees of elevation of the arm. Above 90 degrees clavicular motion at this joint is almost negligible.[10]

Thus, when one stoops to lift a weight, the lateral end of the clavicle sinks and its medial part rests on the first costal cartilage which acts as a fulcrum and tends to lever the medial end of the clavicle out of its socket. However, the articular disc and anterior and posterior ligaments resist this action. Even with the disc destroyed, the costoclavicular ligament and the inclined surface of the clavicular socket hold the clavicle in place. To move medially the clavicle must mount this surface and in doing so renders most surrounding fibers taut. Stability under ordinary circumstances is therefore chiefly assured by the capsular apparatus with its ligaments.

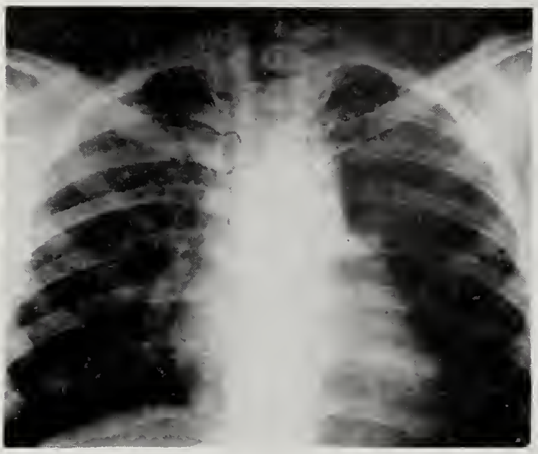

FIG. 2. Normal P-A view of sternoclavicular joints.

Although suprasternal and presternal dislocations may occur, retrosternal dislocation is the least common and potentially the most dangerous. Severe complications and even death occur because of accompanying laceration of the great vessels, trachea, esophagus, thoracic duct or the pleural dome. Several cases have been reported in which the patient developed difficulty breathing and pain on swallowing immediately after injury. These patients required immediate open reduction. Wehner[11] reported the case of a patient who died shortly after injury with a lacerated trachea. Other complications to be carefully searched for are hemothorax, ruptured internal mammary artery, and injury to the brachial plexus.

All 3 of the patients treated by us complained of deep dull pain in the region of the sternoclavicular joint. This pain was aggravated by any motion of the shoulder girdle, including deep breathing. Most of the patients cited in the literature carried their shoulders protectively forward with some depression and could not be induced to move them voluntarily. Greenlee[6] described 1 patient who held his neck flexed in an attempt to relieve pain.

If the patient is seen early, physical examination reveals a depression in place of the normal end of the sternal end of the clavicle. When the patient presents himself for treatment more than 6 hours after injury, as in our 3 cases, swelling and discoloration mask this characteristic depression found on palpation.

Roentgenograms can be diagnostic if a good view of the joint is obtained. This is not always possible in heavy individuals.[12] In our experience the best views are right and left anterior oblique projections (figures 2, 3 and 4). The roentgenogram usually shows the sternal end of the clavicle to be displaced inferiorly and behind the sternum.

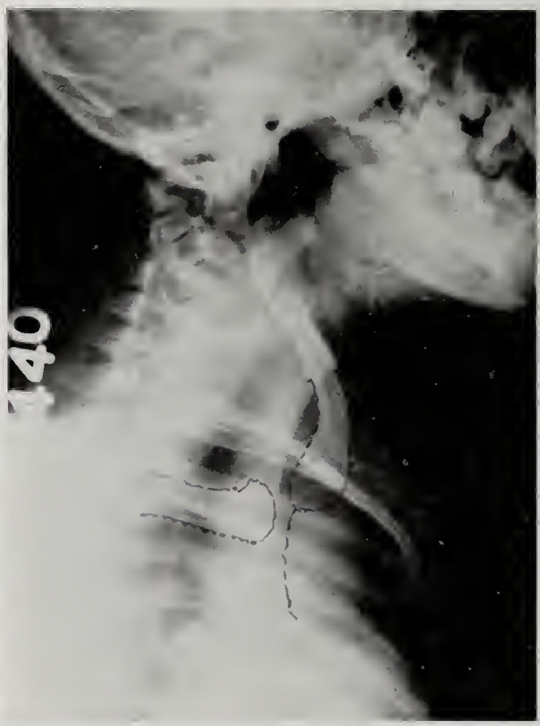

FIG. 3. Right anterior oblique projection of posteriorly displaced sternoclavicular joint.

Care must also be taken to differentiate anterior dislocation, fracture of the sternum or first rib, and strains or subluxations of the sternoclavicular joint.

No pathologic studies were made in our series because no open reductions were performed.

However, Kennedy[13] reported that both the sternoclavicular (anterior and posterior) and costoclavicular ligaments were completely torn. No degenerative changes were found in these ligaments.

Open reduction was the method of treatment used most frequently in the cases reported in the literature.[14] Excision of the sternal end of the clavicle or fascial repair were used as primary procedures in association with open reduction.[15]

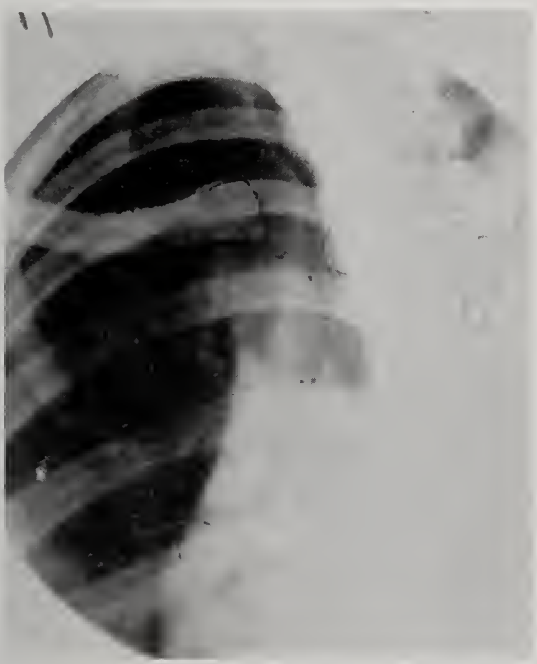

FIG. 4. Left anterior oblique view of retrosternally dislocated clavicle.

Gunther[16] and many recent authors recommend early closed reduction under general anesthesia. We utilized general anesthesia and early manipulative reduction for all 3 patients. Reduction was accomplished easily and maintained without difficulty.

The mechanics of reduction are as follows: The patient is placed on his back with a sandbag between the shoulders. As an assistant pushes in the direction of the floor against the affected shoulder, the operator abducts the corresponding humerus and then grasps the proximal half of the clavicle, pulling it away from the chest in the direction of the patient's head. Reduction is accompanied by a dramatic snap. If a sufficiently firm grasp cannot be obtained, a towel clip may be used on the clavicle.

We think that satisfactory reduction can be obtained by closed methods if the treatment is begun within 24 to 48 hours after injury. The majority of cases reported in the literature that required open reduction were marked by a delay of several days or more between the diagnosis and treatment. Delay therefore necessitates open reduction.

Consequently, even though hindered by the absence of clear-cut physical findings and poor roentgenograms, one must make an early diagnosis. The most important factor in making this diagnosis is a high index of suspicion.

SUMMARY

Posterior dislocation of the sternal end of the clavicle is one of the least common and potentially most dangerous of dislocations. Roentgenograms are not diagnostic in every case and physical signs are often equivocal. Severe complications such as laceration of the trachea have caused death. Early diagnosis is mandatory, and this usually requires a high index of suspicion. Early closed reduction constitutes satisfactory treatment.

Three cases have been reported herein.

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Alveolar Soft-part Sarcoma

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ALVEOLAR SOFT-PART SARCOMA is a descriptive term used for the first time in 1952 by Christopherson et al[1] to describe a particular type of soft-tissue sarcoma. Various names which have been given these tumors are malignant granular cell myoblastoma, undifferentiated sarcoma, non-chromaffin paraganglioma, synovioma, benign granular myoblastoma, rhabdomyoma, rhabdomyosarcoma, angio-endothelioma, and angiosarcoma. These neoplasms have also been confused with liposarcoma, renal cell carcinoma, and metastatic adenocarcinoma. Although these neoplasms do not occur with great frequency it is of prime importance that they be more frequently recognized for their highly malignant potential and structural characteristics.

REPORT OF CASE

J. P., a 10-year-old white boy, was admitted to Providence Hospital, Washington, D. C. on May 27, 1958. His chief complaint was the presence of a small, slightly painful nodule in the left upper anterior portion of the chest which had been present for 3 days before admission. This nodule was first noted after an injury to the chest wall which occurred in the course of a baseball game; another child's head had hit him in the chest when they collided. Since this nodule had the characteristics of a circumscribed tumor mass, removal was advised. Physical examination revealed the presence of a mass, well circumscribed, apparently in the substance of the left pectoralis major muscle. It was about the size of a walnut and slightly tender. There was no enlargement of the axillary or cervical nodes on either side, nor was there any evidence of abnormality in the roentgenogram of the chest. A small nodule was present in the skin of the right upper orbital area and had been present for several years without symptoms or increase in size. It was the size of a small pea, nontender, and attached to the skin. Complete blood count revealed the following: Hb. 13.5 Gm., hematocrit 42, white blood cells 11,250, with 42 per cent polys, 4 per cent eosinophils, 54 per cent lymphocytes, and normal red blood cell morphology. A urinalysis was negative.

On May 28, 1958, under general anesthesia, both masses were removed by Dr. Samuel Zola. The mass in the pectoralis major was excised by sharp dissection and appeared to be well encapsulated. Frozen section revealed a malignant tumor, the origin of which could not be stated. Further dissection and exploration of the pectoralis muscle and the left axillary region revealed no evidence of metastases. Closure was accomplished in a routine manner. The hospital course was uneventful, and the child was discharged on the third postoperative day. Routine examinations at 3-month intervals have shown no evidence of metastases. Chest roentgenograms have been normal on 3 occasions since discharge. Complete blood counts have shown no abnormalities.

The large tumor mass measured 3.5 by 3.0 by 2.0 cm. Externally it had an irregular appearance, was light tan, and showed multiple areas of dark discoloration. The cut surface revealed light tan-colored tissue which appeared homogeneous and was firm. Microscopic study revealed that, although the neoplasm appeared well circumscribed, it was not truly encapsulated. It was composed primarily of neoplastic cells which were quite irregular in the size and shape of the nuclei and staining properties (figure 1). Numerous mitotic figures were seen. There was a tendency for these cells to arrange themselves in an alveolar pattern separated by fine connective tissue strands. The alveolar nests were separated by fine connective tissue septi. In many areas the nests of cells were solid and showed necrosis of the cells at the center. In some areas there was definite perithelial cellular arrangement so that the cells appeared to be crowding capillaries which were lined by an intact endothelium. The cytoplasm of these cells was ill-defined but took eosinophilic stain. No evidence of granules was seen within the cells. There were multiple focal areas of necrosis in the tumor, and in some of the sections at the periphery small veins were definitely invaded by tumor cells. In these areas the tumor cells appeared to be free within the veins, forming emboli. In still other areas the cells appeared to be growing on top of the endothelial membrane. The overall appearance of the tumor fulfilled the histologic criteria of an alveolar soft-part sarcoma.

The smaller tumor mass was reported after microscopic study of a calcifying epithelioma.

DISCUSSION

Soft tissue or soft-part sarcomas are malignant growths, mesodermal in origin, which may appear wherever the particular parent tissue occurs. A simple classification, therefore, of these malignant lesions could be made according to the tissue of origin:

Rhabdomyosarcoma—Skeletal muscle
Synovioma—Synovial membrane
Liposarcoma—Fat
Fibrosarcoma—Fascia
Angiosarcoma—Blood vessel
Neurofibrosarcoma—Nerve sheath
Neurilemmoma
Schwannoma

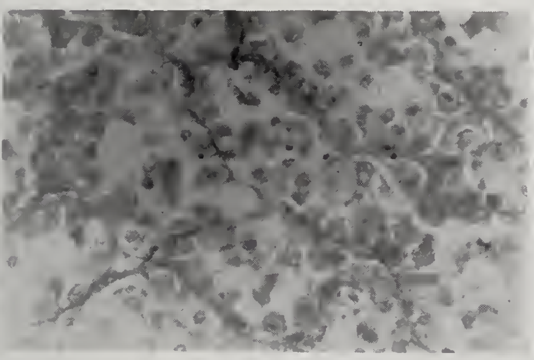

FIG. 1. Microscopic appearance of tumor cells.

However, it is not always possible to determine the exact and actual histogenesis of these neoplasms. If a group of neoplasms does show a distinct morphologic pattern and a separate and distinct behavior pattern in contrast to other neoplasms, classification of these tumors as an entity would be justified. Groups of such tumors with identical morphologic characteristics and behavior patterns have been reported by Christopherson et al,[1] Smetana and Scott,[2] Hurley,[3] and Willis.[4] Other cases have been reported by Randall,[5] Fisher,[6] Hicks and Leitch,[7] Stein,[8] Meredith,[9] Smith,[10] Pollitzer,[11] and Hartz.[12] These neoplasms were named alveolar soft-part sarcomas by Christopherson et al[1] in 1952. Review of the literature and restudy of original slides in some cases by Christopherson brought forth cases of an identical nature[13–16] which were previously reported as rhabdomyosarcoma, myoblastoma and malignant myoblastoma.

The term alveolar soft-part sarcoma refers to this group of tumors which were constantly found in association with skeletal muscle. Morphologically they are characterized by large, faintly acidophilic cells with abundant cytoplasm, round, oval and polyhedral in shape. Vacuolization and fine granules may be present. Very strikingly, the tumor cells show a pseudoalveolar or organoid (endocrine-like) arrangement approximating spaces lined by endothelium. There are no reticulin fibers between the individual cells which form compact groupings. In the central portion of the cellular groups necrosis or absence of cells may occur, thus enhancing the alveolar appearance. It has been suggested that the alveolar appearance is merely an artifact caused by the dropping out of the cells of the central portion of the group. However, this uniformity of pattern is strikingly consistent and is present as well in the metastatic growths which have been studied. The nuclei of the tumor cells are usually eccentrically placed, contain 1 or more distinct nucleoli and are rather basophilic. Mitotic figures are usually present but never in large quantities. Small groups of tumor cells may be seen growing into blood vessels; in each instance the endothelium is pushed ahead of the small bud of tumor cells into the vascular channel. This finding is consistent both in those tumors which are slow-growing and in those demonstrating early and multiple metastases. Cytologic variations seem to be related more to cellular degeneration than to activity, thus allowing no basis for classification of malignant potential.[1] Seventy-two per cent of the reported cases with adequate follow-up data demonstrated multiple metastases.

HISTOGENESIS

The exact origin of the alveolar soft-part sarcoma is as yet undetermined. Christopherson[1] noted structural resemblances to carotid body tumors. Smetana and Scott[2] named their series of tumors malignant tumors of non-chromaffin paraganglia, again noting the histologic similarity to carotid body tumors. However, their opinion was greatly influenced by L. C. Johnson,[17] who subjected their material to a critical review. He discovered tissue similar in structure to the carotid body located in Hunter's canal approximating the femoral artery; this was an isolated finding peculiar to only 1 case of the 14 submitted.

Favorable evidence in regard to a neural origin for these tumors is based on (1) the histologic similarity to tumors arising from chemoreceptor origin, (2) the finding of chemoreceptor type of tissue in Hunter's canal in 1 case of alveolar soft-part sarcoma of the thigh, (3) the presence of nerve fibers in the tissue about the primary growths and frequently between neoplastic-cell groups, (4) the absence of myoblasts in the tumor growth even though it is found constantly associated with or in skeletal muscle, and (5) the marked histochemical similarities of the alveolar soft-part sarcoma, the granular cell myoblastoma and non-chromaffin paragangliomas. In 1956 Fisher[6] published an excellent histochemical study comparing the reactions of the alveolar soft-part sarcoma, the granular cell myoblastoma, peripheral nerve myelin, and spinal cord myelin. The alveolar soft-part sarcoma used in his study was obtained at autopsy from a 26-year-old white man who demonstrated a primary site in the right thigh with local recurrence and widespread metastases (vertebrae, liver, lungs, and mediastinal lymph nodes). Tumor blocks from the primary and secondary sites were studied. Neural elements were noted in the material studied. The results of a histochemical study of 43 granular-cell myoblastomas were substantially recreated.[18] There is very strong suggestion for a neural origin of alveolar soft-part sarcoma and granular cell myoblastoma; the chemical reactions of the cytoplasmic granules and their staining properties are markedly similar to that of peripheral myelin.

Evidence against a chemoreceptor origin is based on the facts that (1) chemoreceptor organ tumors always show variations in cell pattern within the tumor substance, whereas the alveolar soft-part sarcoma demonstrates a strikingly characteristic uniformity of pattern, (2) Hurley[3] was unable to demonstrate nerve fibers in alveolar soft-part sarcomas even stained by Palmgren's method, whereas chemoreceptor body tumors demonstrate nerve tissue in great amounts, (3) in vitro tissue culture studies of a cerebral metastasis of an alveolar soft-part sarcoma showed the cells to be generally mesoblastic in nature with a great variety of cell morphology but with "the most frequent and recognizable specialization in the direction of skeletal muscle,"[19] the behavior pattern being quite distinct from that of the paraganglioma, and (4) alveolar soft-part sarcomas have demonstrated a high degree of malignancy with metastases (72 per cent) in contrast to chemoreceptor body tumors, which are almost always benign.

The literature obviously presents the disputed origin of the alveolar soft-part sarcoma and emphasizes at the same time the morphologic and behavior pattern distinctness.

The differential diagnosis should include metastatic adenocarcinoma and renal-cell carcinoma in particular, liposarcoma, endothelioma, rhabdomyosarcoma, and granular cell myoblastoma.

Renal-cell carcinoma only superficially resembles alveolar soft-part sarcoma in histologic sections. Occasionally a fascicular arrangement of carcinoma cells will be found. There is no true acinar formation. There is only a very small amount of cytoplasmic fat in evidence. Absolute proof lies in the inability to demonstrate any primary renal neoplasm. Endothelioma is excluded by the basic finding of the perithelial position of the tumor cells in the alveolar soft-part sarcoma and the observation that the tumor cells grow, pushing the endothelium before them without evidence at any point of transition between endothelium and tumor cells. Liposarcoma can be excluded by the absence of sudanophilic cytoplasm. Rhabdomyosarcoma may be excluded by the inability to find elongated, ribbon-form cells and the complete lack of cytoplasmic striations. Myoblastomas usually demonstrate a coarse granularity which is not present in the alveolar soft-part sarcoma. There is notably a lack of pseudo-acinar and alveolar structure as well.

tongue (1). In the extremities the tumor was most often found arising from the substance of the long muscles and occasionally from or attached to the intramuscular septi.

The most frequent reason for seeking medical advice was the presence of a slowly growing mass, often painful. Constitutional or generalized symptoms in the nature of weight loss, cough, fever, malaise, hematuria and vomiting appear only in the presence of metastases and constitute unfavorable signs.

TABLE 1

Distribution of Metastases of Alveolar Soft-part Sarcoma

Original Site	No. of Cases	Local	Lungs	Nodes	Liver	Spleen	Brain	Heart	Bone	Prostate	Muscles	Adrenal	Pancreas
Extremities	32	6	16	6	3	0	4	1	7	0	4	0	1
Retroperitoneal	5	0	3	0	2	0	0	0	0	0	0	1	0
Tongue	1	0	0	0	0	0	0	0	0	0	0	0	0
Head and neck	2	1	1	0	0	0	1	1	0	0	0	0	0
Bladder	1	0	1	0	1	1	0	1	1	1	0	0	0
Abdominal wall	1	1	1	0	0	0	0	0	0	0	0	0	0
Totals	42	8	22	6	6	1	5	3	8	1	4	1	1

CLINICAL CONSIDERATIONS

Review of cases. Forty-two cases appearing in the medical literature have been reviewed. One other case is obviously an alveolar soft-part sarcoma from the typical appearance of the photomicrograph but is not included in the summary because of the total lack of any specific data.[15] The oldest patient was 73 years old and the youngest 3 years old; the average overall age was 26.4 years. Twenty-five were females (59.5 per cent) and 17 were males (40.5 per cent). Three were Negroes (7.1 per cent), and 1 was of Indian extraction.

The location of the tumor (table 1) in the great majority of instances was in the extremities (76.2 per cent). The next most frequent site of occurrence was in the retroperitoneal area (11.9 per cent). The other reported primary sites were the bladder (1), lower abdominal wall (1), the head and neck (2), and the base of the

In 12 cases (28.6 per cent) a history of trauma was obtainable in the area where the tumor primarily appeared or recurred. Trauma in this instance includes surgery, irradiation, and in 1 instance incision for the mistaken purpose of drainage of pus.

In this series of cases the average duration of symptoms prior to operation was 1.8 years; the shortest period was 2 days and the longest 6 years. Local excision was employed in 38 of the 42 cases, 2 patients were inoperable, and in 2 others amputation of the involved extremity was deemed the procedure of choice. In these 42 cases metastases were present in 72 per cent. Follow-up data indicate that 13 (31 per cent) received X-ray therapy which proved to be of no value in the retardation of growth or palliation of symptoms. At this writing 18 (42.9 per cent) are known to be dead. The average duration of life following operation in this group was 2.1 years. Six patients showed widespread metastases with symptoms which were increasing in severity. The most frequent sites of metastases are lungs, bone, lymph nodes and liver. Local recurrences were present in 8 cases (19.1 per cent). Although 55 per cent of the tumors were found to be encapsulated, this in no way prevented metastatic spread of tumor cells. The longest period of survival following excision of the primary tumor was 20 years, the shortest 2 years. Although deaths have been recorded within periods of less than 2 years postoperatively, they occurred in cases which demonstrated metastases already present at the time of excision of the original growth.

Tumor growth patterns. As a soft-part sarcoma enlarges it generally remains enclosed within the substance of the surrounding tissues, growing along natural divisional planes. At the periphery of the growing tumor mass there is compression of tumor and surrounding normal tissue cells into an encapsulating matrix. Compression by host tissues may account for the very slow growth rate of many of these tumors. The formation of a profuse blood supply in the normal adjacent tissues is then stimulated by the growth of the sarcoma; this is true of sarcomas in general. Tumor growth and spread then continue in 3 patterns: (1) local extension, (2) hematogenous spread, and (3) extension into lymphatic channels. Extension into lymphatic channels is a rare occurrence because sarcomas generally originate in tissues almost devoid of lymphatics and have no lymphatics of their own. Hematogenous spread is the most common route. Tumor growth into the very small, thin-walled adjacent blood vessels may result in the production of tumor-cell emboli.

Therapy. Certain generalizations can be made in the handling of all soft-part sarcomas. Excision biopsy of the entire growth including a wide area of normal adjacent tissue is the procedure of choice. Incisional biopsies as well as accidental injury have very often stimulated a very intensive growth phase in tumors which have been dormant. Biopsy by aspiration technic entails the double disadvantage that typical neoplastic cells may not be reached and that the needle puncture of a malignant growth may be just as traumatic, or even more so, than an incisional biopsy.

It is entirely possible that any surgical procedure or trauma will disturb the tumor mass enough so that tumor-cell emboli are broken off from the parent growth and are cast into the general blood-stream flow. Therefore, the mere removal of any sarcomatous growth may in itself result in the production of metastases. Enucleation of an apparently encapsulated growth is particularly unwise for this reason.

Isolation of the operative field should be attempted when the growth is removed from an extremity. Biopsy should be attempted only after the placement of a proximal tourniquet. Proximal and distal tourniquets are advised when amputation is considered.[20, 21]

Biopsy itself, even though excisional, is not complete surgical treatment for soft-part sarcomas. In view of the possibility of metastatic spread occasioned by the biopsy technic itself it would seem that the procedure of choice in the removal of any deeply situated soft-tissue mass, particularly in the extremities, would be wide excision in the gentlest manner possible; definitive surgery would then depend upon the results of frozen section. In each instance the surgeon should be prepared for amputation of the involved extremity immediately following the excision biopsy. There are only 2 surgical procedures considered in the treatment of soft-part sarcomas; they are excision of the primary tumor and amputation of the involved extremity. The presence of a primary growth in any site other than an extremity offers an unfavorable prognosis because complete removal of the tumor growth with adjacent tissue may not always be possible. Radical excision of the primary growth when no metastases are clinically present offers the least mutilating procedure with some possibility of cure. Radical regional lymph-node dissection accompanying excision of the primary growth does not seem to offer a better outlook, considering that soft-tissue sarcomas rarely invade lymph channels. When lymph channels are invaded it is generally late in the course of the disease and other metastases are already present. In only those cases in which the regional nodes are involved should radical node dissections be employed. In view of the highly malignant nature of these lesions and the possibility that clinically undetectable metastases are already present it is questionable that amputation of extremities containing primary growths would afford a higher rate of cure. In this series of cases only 2 patients were subjected to amputation; the results were unfavorable in both. In 1 metastases were already present, and in the other hidden metastases became clinically detectable 9 days following operation. Amputation would definitely be indicated when bone and joint tissues have been invaded, when primary growths cannot be removed by excision, and when there is recurrence of tumor growth in an area of previous wide excision.

When metastases are already present conservative treatment is indicated. Surgery would be indicated only for diagnostic purposes or for palliation of local symptoms.

X-ray therapy has been proven to be of no benefit in treatment of soft-part sarcomas.

It has been suggested that perhaps chemotherapy alone or in combination with surgery will provide the most efficient method of treatment or control of these tumors.

SUMMARY

A case of alveolar soft-part sarcoma occurring in a 10-year-old boy has been reported; 41 cases appearing in the literature have been reviewed.

The alveolar soft-part sarcoma is a highly malignant neoplasm of uncertain histogenesis, most commonly found in association with skeletal muscle. Although its origin is in doubt, morphologically and behaviorally it is considered an entity.

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The Use of Trifluoperazine for Acute Alcoholism

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The District of Columbia General Hospital treats some 1,500 to 2,000 alcoholics a year. The vast majority of these are treated in the Department of Psychiatry on a unit consisting of between 25 to 35 beds. Because of the large numbers being treated and the limited availability of beds it is necessary to find an agent or agents that will rapidly return the individual to a state in which he can take solids and fluids orally. The treatment program generally follows the administration parenterally of high doses of phenothiazine derivatives plus the use of parenteral vitamins. This is then followed as quickly as possible with the forcing of fluids and solid foods and early discharge of the patient. The average stay per patient is approximately 4 days, and in view of this it is necessary to institute treatment rapidly and effectively.

In treating acutely disturbed alcoholic patients phenothiazine derivatives offer advantages over barbiturates and other sedatives because they produce sedation without producing incapacitating stupor, reduce agitation, and control nausea and vomiting. Notable results have been obtained with chlorpromazine and promazine. When chlorpromazine is used parenterally, however, the risk of hypotensive episodes to which alcoholics are particularly prone increases. Then too, the potentiating properties of chlorpromazine, while desirable in other indications, may be undesirable in a patient who has already consumed large amounts of alcohol, barbiturates or narcotics. Promazine, while less likely to produce hypotension or potentiation, has been known to reduce the convulsive threshold; therefore, while both preparations have been used successfully in treating alcoholics, both are capable of producing undesirable side-effects.

In preliminary studies Haworth,[1] Rudy,[2] and Goldman[3] reported that trifluoperazine, a new preparation related to chlorpromazine and promazine, rapidly controlled hallucinations and delusions in psychotic patients; moreover, the medication showed little potentiating activity and, although a lowering of blood pressure was reported in some patients, hypotension was not a problem. There was no indication of adverse effects on the convulsive threshold (Klimczynski,[4] Rettig[5]). These reports, together with our observations of patients treated with trifluoperazine in other departments, led us in June of 1959 to begin using it in treating a small series of acute alcoholic patients. On finding the drug to be rapid-acting in resolving alcoholic hallucinoses, delusions, and delirium, we decided to extend our series.

Materials and Method

Seventy-five patients routinely admitted to the Alcoholic Section of D. C. General Hospital between June and October with alcoholic tremulousness, alcoholic hallucinations, or delirium tremens comprised the study group. All were males, aged 29 to 69, with a history of alcoholism. Many were known to us because they had been treated in this hospital for previous acute episodes.

Some patients required restraint on admission. Nine had received sedatives or tranquilizers within 24 hours before trifluoperazine was administered. Of the 9, 4 received R050690 (librium), 4 promazine, and 1 perphenazine with little or no relief of symptoms.

When the patient's condition permitted, physical examination was made and previous histories recorded. Blood pressure, pulse, and respiration were checked before and at regular intervals during trifluoperazine therapy.

We started by using trifluoperazine,* 5 mg. parenterally or 15 mg. orally every 6 hours. Since the results of initiating therapy orally were generally disappointing, we reserved this route for maintenance therapy, that is, after symptoms had been controlled by parenteral administration. And since the onset of action with either intravenous or intramuscular administration was approximately the same for most patients, we decided on the intramuscular route, using 5 mg. every 4 to 6 hours as required. When therapy was continued for more than 72 hours oral therapy (15 mg. every 6 hours) was used.

RESULTS

Trifluoperazine rapidly relieved delusions, hallucinations, and confusions and controlled tremulousness and combativeness. For some patients only 1 dose of trifluoperazine was needed for complete relief of symptoms; in others, therapy was continued for 96 hours. However, the average length of therapy was 24 to 48 hours. Since the overall results were gratifying, detailed data were not tabulated for the entire series. But the results obtained in the first 22 patients are representative of those obtained; in this group all but 3 patients obtained complete relief of symptoms within 96 hours, 14 responded within 24 hours, 2 within 24 to 48 hours, and 3 within 48 to 96 hours.

All patients who received the medication parenterally became calm and were able to sleep within 30 to 60 minutes after the first dose. On awakening, their delusions, hallucinations and confusions were gone, and most patients were able to walk unaided to the dining room and eat a hearty meal.

Dramatic results were obtained in some cases with only 1 dose of trifluoperazine. A 29-year-old patient with a diagnosis of delirium tremens was delirious on admission. He had both auditory and visual hallucinations, imagined that he saw animals and heard people telling him to jump out the window, and attempted to do so. Thirty minutes after 1 dose of trifluoperazine (5 mg. intramuscularly) all delusions and tremors were gone; he slept and the next morning ate well. There were no side-effects, and he was discharged in 3 days. The response of this patient is particularly gratifying because he was in this hospital for 10 days with his previous episode of delirium tremens.

A more typical response was that of a 40-year-old patient who required 24 hours of trifluoperazine therapy (5 mg. intramuscularly every 6 hours). On admission this patient was acutely tremulous and slightly confused. It was difficult for him to sit or stand unsupported. The diagnosis was alcoholic tremulousness; within 20 minutes after the first dose of trifluoperazine he was able to stand by himself. On awakening after a restful sleep he had no recurrence of symptoms or relapse after medication was withdrawn. There were no side-effects.

We were also impressed by the low incidence of side-effects. A lowering of blood pressure was observed in 1 patient, but there were no hypotensive episodes.

The lowering of blood pressure in disturbed patients is a frequently noted phenomenon. It is a question whether this is a direct effect or a calming effect of the drug. Most of the patients are usually resisting attempts to be examined or are agitated and disturbed, and their blood pressure may be elevated because of these problems. A fall of blood pressure of 20 to 30 mm. systolic following the sedating of the patient probably does not represent an actual lowering of the basal blood pressure.

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*Supplied under the trade name Stelazine by Smith Kline & French Laboratories, Philadelphia, Pa.

Both akathisia and extrapyramidal symptoms have been reported with trifluoperazine. We observed mild extrapyramidal symptoms in a few patients, but only 1 patient had symptoms severe enough to require antiparkinsonian drugs.

In this small series we found that trifluoperazine did not lower the convulsive threshold. A patient with epileptic delirium tremens who had received promazine for 5 days with no relief of symptoms had a series of convulsions. Phenobarbital and Dilantin were given. The patient remained in restraints. After 1 dose of trifluoperazine he was able to sleep well that night and was out of restraints the next morning, walking by himself and eating better.

Another patient with delirium tremens had obtained little relief from promazine and while being transferred to our unit had a grand mal seizure. Dilantin, phenobarbital and trifluoperazine were given. After 36 hours the patient made a remarkable recovery and had no further seizures.

SUMMARY

It is our belief that trifluoperazine is an important adjunct to the treatment of acutely disturbed alcoholic patients. It is the most potent of all of the phenothiazine derivatives now available and has the least dangerous side-effects. We were impressed with its usefulness in combating and controlling rapidly the hallucinations and delusions of patients. It was our clinical impression and not one that can be readily validated, however, that the drug is more potent against those conditions that are caused by organic toxic brain disorders. In attempting to use the drug in patients with functional disorders such as acute schizophrenia we ran into more difficulty with side-effects, such as extrapyramidal syndromes. It seemed that the drug would be more useful in those conditions that were caused by toxic organic factors than in those with functional psychosis.

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PRESIDENT'S PAGE

HOSTS TO THE AMA

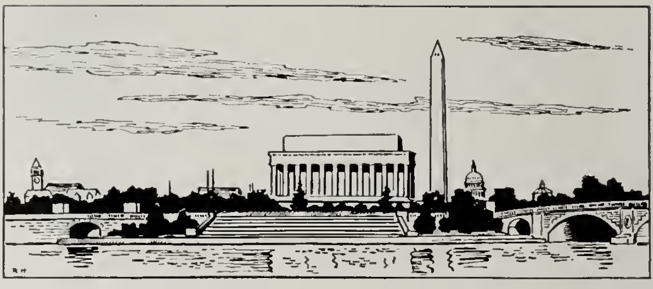
On November 28 the American Medical Association convenes in this city for its midwinter or Clinical Meeting. These meetings have proved very popular in the past wherever they have been held, and we can safely predict that the Washington meeting will be no exception. Customarily the host state and county societies are given the responsibility of preparing the scientific program in close liaison with the AMA's Council on Scientific Assembly. All the other necessary arrangements, such as choice of meeting place, selection of headquarters hotel, arrangements for housing, are the responsibility of the hard-working and efficient staff of the AMA.

During each clinical session the House of Delegates holds its semi-annual meeting. This year the House will meet at the Sheraton-Park Hotel; the meetings of the House are open and this opportunity should be taken advantage of by anyone who is interested in seeing our legislative body in action. Particularly interesting are the meetings of the reference committees, which usually take place on the second day of the meeting. Although only the delegates to the House may participate in the discussions on the floor of the House, an opportunity is afforded any interested individual to speak and present his views in the meetings of the reference committees. The democratic process is followed from start to finish; both sides of any question can be argued by proponents and opponents alike. The men assigned to serve on these reference committees are usually experienced delegates who have served in the House for some time. After the public session is concluded the members of the committees meet to hammer out their recommendations to the House, based on their best judgment of the testimony which was presented. They either approve, disapprove, or urge modifications of the various resolutions. If their recommendation is contrary to the proposals presented in a given resolution, the proponents of the latter still have an opportunity to argue their case on the floor of the House of Delegates. It is not unusual after further argument in the House on matters which are highly controversial that the assembled delegates reverse the recommendation of the reference committee, or at least substantially modify it.

We cannot help but be proud of the many achievements of the AMA and be deeply impressed by the efficient manner in which the House of Delegates functions. We can be proud of its record and its leadership in health matters. Our Society has usually been in complete agreement with its purposes, though at times we have differed on policies. The Medical Society of the District of Columbia stands with the more liberal minority of the AMA on socioeconomic matters. If our views do not prevail it is because in the AMA the majority rules, as it should. Nevertheless, when we feel that our position on a given subject has merit we shall press for its acceptance with vigor and, I hope, wisdom.

In anticipation of a most successful Washington meeting, I wish to thank every member of the Committee on Arrangements for a job well done. I hope every member of our Society will consider himself a member of a welcoming committee and be a gracious host to our colleagues of the AMA.

Victor R. Alfaro.



EDITORIALS

WELCOME TO THE CLINICAL MEETING

It is with great pride that the American Medical Association looks forward to holding its Fourteenth Clinical Meeting in Washington, D. C., November 28 through December 1. The physicians of America who will attend this meeting in the Nation's Capital can anticipate one of the finest scientific programs of our day.

I want to welcome all physicians to this meeting and, going one step further, I want to urge all members of the American Medical Association in this area to attend the Clinical Meeting, to take part in the scientific activities, to visit the scientific and industrial exhibits, and to attend the sessions of our House of Delegates.

Considerable time has been spent with your Society to develop the finest scientific program possible, which this year will stress the theme, "New Developments in Old Diseases and Old Developments in New Diseases."

A feature of particular interest to the practicing physician will be the presentation of both sides of a question where differences exist concerning the management of a disease or medical condition. I personally look forward to some interesting debate on many subjects where opinions differ.

Leading physicians and scientists from across the Nation will cover problems in the fields of gynecology, hematology, obstetrics, psychiatry, orthopedic surgery, and ophthalmology, including coronary disease, pathologic nodules, artificial kidneys, diarrhea, antibiotics, and tranquilizers.

The scientific sessions in the National Guard Armory will be arranged so that 3 sections will convene simultaneously in both morning and afternoon. One section will be devoted to presentations of formal papers, another to panel discussions, and the third to symposia. Of course, all sessions will be followed by question-and-answer periods.

The months of prolonged, detailed planning for these meetings have been directed to one goal: to give you, the doctor, the latest, up-to-the-minute scientific information. Our clinical meetings are designed as a sort of postgraduate course in medicine, to provide you with all the major scientific advances under one roof.

A scientific highlight of this meeting will be a series of 6 one-hour color television presentations from Georgetown University Hospital. These shows will feature dermatology, pediatrics, emergency treatment of major injuries, and newer methods in surgical treatment of peptic ulcer, orthopedics and pathology.

Three scientific breakfasts will be held on both Tuesday and Wednesday at the Hotel Statler-Hilton, highlighting the themes, "To

(Continued on page 565)

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of the Medical Society of the District of Columbia

14th Clinical Meeting
American Medical Association

Washington, D. C.
November 28 – December 1, 1960

Nation's Capital Welcomes the AMA

Dr. Stubbs

The Medical Society of the District of Columbia is proud to be host for the second time to the Clinical Meeting of the American Medical Association. Eleven years ago, in 1949, 8,487 physicians and guests participated in the Clinical Meeting; this year an even greater attendance is anticipated.

The opportunity of attending the Clinical Meeting of the AMA in Washington is one which will not present itself again for a number of years. Therefore, every practitioner of medicine in the Washington Metropolitan Area is urged to participate. The American Medical Association with the help of our Committee on Arrangements is endeavoring to make this the best Clinical Meeting ever held. Register early and attend as many sessions as you can.

Donald Stubbs

Chairman, Committee on Arrangements

House of Delegates

The Sheraton-Park Hotel

The House of Delegates will convene at 10 a.m., Monday, November 28, 1960, in Sheraton Hall of the Sheraton-Park Hotel. Presiding will be Dr. Norman A. Welch, Boston, Speaker of the House of Delegates. The reference committees will meet all day, Tuesday, November 29, in designated rooms at the same hotel.

All members of the American Medical Association are cordially invited to attend sessions of the House and to express their opinions at the open meetings of the reference committees. It is hoped that many members of the D. C. Medical Society will avail themselves of the opportunity to see the House of Delegates in action.

A highlight of the meeting will be the election by the delegates of the General Practitioner of the Year.

DINNER TO HONOR GENERAL SNYDER

General Snyder

Major General Howard McC. Snyder, MC, USA, Personal Physician to President Eisenhower, will be the guest of honor at the House of Delegates' dinner, November 28, in the Sheraton Hall of the Sheraton-Park Hotel. President Eisenhower has been invited and is expected to attend if his official schedule permits.

General Snyder, who has been associated with the President since the early 1940's, was appointed Personal Physician to the President in January 1953, when he was inaugurated for his first term in the White House. General Snyder is an Honorary member of the D. C. Medical Society.

Scientific Program

All the scientific sessions will be held at the District of Columbia National Guard Armory, starting at 9:30 a.m., Monday, November 28, and running until 11:30 a.m., Thursday, December 1. Three sections in both morning and afternoon will meet simultaneously in separate rooms at the Armory. One section will be devoted to presentations of formal papers, another to panel discussions, and the third to symposia, and all of them will have question-and-answer periods. Outstanding physicians and research scientists from throughout the Nation will conduct the scientific program. Credit for its excellence is due the committee of Washington physicians who arranged the program, headed by Dr. Alfred Brigulio. All of the meetings will stress the theme, "New Developments in Old Diseases and Old Developments in New Diseases."

Some of the topics to be discussed are: "Can Coronary Patients Be Predicted by Clinical or Physiologic Measurements?" "Fat Metabolism as a Background to the Development of Coronary Atherosclerotic Disease," "Genetic Background of Patients with Coronary Vascular Disease," "Management of the Dietary and Psychologic Problems of the Patient with Coronary Disease," and "The Problem of Management of Nodules."

National Guard Armory

Scientific Breakfasts

Hotel Statler-Hilton

Three "scientific" breakfasts will be held each morning, Tuesday and Wednesday, from 7:15 to 8:45 a.m., at the Hotel Statler-Hilton.

Tuesday's breakfasts will follow the theme, "To Do or Not to Do." Three topics will be covered: "Tonsillectomy," Dr. Victor R. Alfaro, President, The Medical Society of the District of Columbia; "Therapeutic Abortion," Dr. Henry C. Falk, New York; and "Hypothermia in Surgery," Dr. C. R. Stephen, Durham, N. C.

The theme for the Wednesday breakfast meetings will be "Problems of Management." The subjects and speakers for the three sessions will be: "Management of Threatened and Habitual Abortion," Dr. Robert H. Barter, Washington; "Management of Pain," Dr. Henry K. Beecher, Boston; and "Management of the Patient with Tranquilizer Drugs," Dr. Otis R. Farley, Washington.

Tickets will be available at the Registration Bureau in the Armory.

Scientific Exhibit

Always an important and integral part of the Clinical Meeting is the Scientific Exhibit, which will contain approximately 135 exhibits in the Armory. Many of these will relate to such specific subjects as cardiovascular conditions, arthritis and rheumatism, and cancer. Others will be grouped into rather broad areas such as neurology and psychiatry, pediatrics, orthopedics, dermatology, drug therapy, surgery, ophthalmology and otolaryngology, obstetrics and gynecology, and laboratory and clinical investigation. Special demonstration exhibits on Fractures and Problems in Delivery will also be included.

TV and Motion Pictures

Six 1-hour color TV presentations, originating in Georgetown University Hospital, will be shown at the National Guard Armory during the Clinical Meeting. The live presentations, televised in a special studio or from operating rooms at the Hospital, will deal with dermatology, pediatrics, emergency treatment of major injuries, new methods in surgical treatment of peptic ulcers, orthopedics, and pathology. Using patients as examples physicians will discuss various aspects of diagnosis and treatment.

Medical motion pictures have been carefully selected for showing at the Armory. A program giving the titles and time of showing will be distributed from the Registration Bureau.

Women Physicians

There will be a Hospitality Room at the National Guard Armory for the convenience of women physicians attending the Clinical Meeting. On hand to offer assistance to visitors will be members of the Women's Medical Society of the District of Columbia, who will be glad to answer questions relating to professional activities during the meeting, places of interest in and about the city, including entertainment and where to eat, and they will introduce women physicians, if they like, to colleagues in their own field of interest.

Industrial Exhibition

Over 100 exhibits will make up the Industrial Exhibition, also in the National Guard Armory, where the products, services and aids provided by industry to physicians and their patients will be on display and staffed by competent and knowledgeable attendants. The Exhibition will be open for visitors beginning on Monday, November 28, 8:30 a.m. to 5:30 p.m., and will close on Thursday at 12 noon.

Registration

The Registration Bureau will be located in the National Guard Armory on 2001 East Capitol Street and will be open as follows:

REGISTRATION

Monday, November 28, 8:00 a.m.–5:30 p.m.
Tuesday, November 29, 8:30 a.m.–5:30 p.m.
Wednesday, November 30, 8:30 a.m.–5:30 p.m.
Thursday, December 1, 8:30 a.m.–12 noon

An information window will be operated in connection with the Registration Bureau. Members of the American Medical Association—Active, Affiliate, Associate, Service and Honorary—and invited guests may register for attendance at meetings. Residents, interns, medical students, Student AMA members, and registered nurses are invited to attend the meetings and will be given registration cards at a designated window. AMA members of the Medical Society of the District of Columbia are urged to take advantage of the early opening of the Registration Bureau on Monday.

Alumni Luncheon and Buffet Supper

The George Washington University Medical Alumni Association will sponsor a luncheon on the opening day, November 28, at 12:30 p.m., in the South American Room at the Hotel Statler-Hilton. Tickets at $4.50 each will be available at the Registration Bureau in the Armory. After November 1, but prior to the meeting, tickets may be secured at the Executive Offices of the Medical Society of the District of Columbia and at the Alumni Office of George Washington University, 2000 H Street, N.W.

A buffet supper in honor of Georgetown University medical alumni who are members of the House of Delegates of the American Medical Association will be held in the Kober-Cogan Hall at Georgetown University Medical Center on Tuesday, November 29, at 6:30 p.m. All alumni of Georgetown University School of Medicine are invited to attend as guests of the Very Reverend Edward B. Bunn, S.J., President of the University.

Special Tours

The Federal Bureau of Investigation issues a special invitation to physicians, their wives and guests to visit and tour the FBI Headquarters. The tours are conducted Monday through Friday between 9:30 a.m. and 4:00 p.m., starting every 10 minutes and lasting about 1 hour.

Headquarters of FBI, Department of Justice Building

(*Continued from page 560*)

Do or Not to Do" and "Problems of Management" in particular diseases or types of cases.

During the meeting, the House of Delegates, AMA's policy-making body, will meet at the Sheraton-Park Hotel. I cordially invite every member of the AMA to attend the sessions of the House. Although only delegates are permitted to speak from the floor, any AMA member may express himself on issues in the reference committee meetings, scheduled to meet all day Tuesday, November 29. This is one of the rights of AMA membership, and I hope any of you who wish will take advantage of it.

This participation by doctors from all over America is one of our surest guarantees that the AMA will continue to serve its members best. There is no member who cannot be heard from, or who will be refused an audience. Not only is this a right, but I regard it as a duty of physicians to speak up on matters they think of interest or concern to the AMA and American medicine. Only in this way can we remain alert to changing opinions, new developments, and whispering crises.

Another highlight of this meeting will be the election of the General Practitioner of the Year. This is in line with the purpose of the Clinical Meeting—to provide the family doctor with the newest developments in medicine. Of course, the scientific meeting is also designed to inform specialists and researchers as well as general practitioners.

But whether you are a general practitioner or a specialist, a practicing physician or a research scientist, you cannot afford to miss this outstanding Clinical Meeting. On behalf of the American Medical Association, I cordially invite and urge you to attend. The success of our meetings is measured solely by how helpful and informative they are for you, the doctor.

E. VINCENT ASKEY, M.D.
President, American Medical Association

A CHALLENGE TO THE MEDICAL PROFESSION

Across the Nation in 1959, traffic accidents killed 37,600 individuals and injured another 2,870,000. In our own 68½ square miles of the District of Columbia, in the same period, 63 persons were killed and 8,076 injured. At this rate, assuming that things do not get even worse, we can predict that 1 of every 20 of our District citizens will be injured or killed in a motor vehicle accident within the next 5 years. There can be no question that the traffic accident is one of our city's greatest unsolved health hazards.

Ever since 1903, when driver licensing was first recognized as a public necessity in the District of Columbia, the question of the applicant's physical qualifications to drive has been a consideration. When Congress passed the Traffic Act in 1925 it formally recognized the importance of good health in driving by directing the examination of applicants to determine whether or not they were "physically qualified to operate a motor vehicle in such a manner as not to jeopardize the safety of individuals or property."

Congress has thus placed a tremendous responsibility on the shoulders of the Director of Motor Vehicles. It requires him to satisfy himself that the applicant not only has the necessary skill to drive safely, but also is physically, mentally, and morally qualified. Obviously, to do the whole job properly, the Director must turn to the experts in the field of physical and mental qualifications, namely, the members of the medical profession.

As the traffic safety problem has grown out of all proportions, the need for a more reliable method of determining the physical qualifications for safe driving has made itself felt more and more keenly. I see glaring defects in our present system of referring an applicant to his family doctor so that he may determine if he should be placed in full control of a lethal weapon like the high-powered modern automobile.

First, we must face the all-too-human factor of the personal relationship of the doctor to his patient. When we ask the applicant to have his physical qualifications to drive safely evaluated by his family doctor, we may be putting the physician in a delicate position. We can readily understand his reluctance to deprive his patient and perhaps his friend of one of life's most precious possessions, the privilege of driving. The decision to take a man's permit away is one of the most painful to reach. Not even the impersonal hearing officer in a motor vehicle department enjoys this task, not to speak of a doctor and his patient.

Beyond this is a second and even more basic defect, one which is positively inconceivable in this day and age. The personal physician does not have any recognized set of standards to determine his patient's ability to drive safely. Here is where the medical profession should have acted long ago.

We motor vehicle administrators need guidance in assessing physical standards. There is no question but that this guidance must come from the medical profession, which can best evaluate the degree of risk that is involved in permitting a person to drive who uses insulin or has heart disease, epilepsy, etc. I am firmly convinced that inevitably a national set of standards will have to be established. This is an invitation and a challenge to the medical profession to do what can be the most constructive job imaginable in the interest of traffic safety.

In the meantime, where it is legally possible, doctors can perhaps best help traffic safety officials to spot high-risk drivers by reporting to them patients with epilepsy, diabetes, or other serious conditions which would make their driving a hazard for themselves and for their fellow-citizens. I know that this kind of reporting may raise certain objections, but society has the responsibility of getting dangerous drivers off our highways whether the latter like it or not.

Finally, I should like to pay tribute to the members of the Traffic Committee of the D. C. Medical Society for the devoted service they render in evaluating medical evidence on drivers whose physical qualifications have been questioned and brought to our attention. Working tirelessly and shunning personal glory, they have rendered invaluable service to the Department of Motor Vehicles and, consequently, to the community in helping weed out the more obvious risks.

George A. England
Director, Department of Motor Vehicles, District of Columbia

LIVE POLIOVIRUS VACCINES

During recent months a number of conferences have been held at which progress in the field of immunization with live poliovirus vaccines was reported. These conferences include the meeting held in Moscow in May, the joint Pan-American Health Organization-World Health Organization Conference held in Washington in June, and the Fifth International Congress on Poliomyelitis held in Copenhagen in late July. The staff of the Public Health Service and its Advisory Committee on Live Poliovirus Vaccine have given careful consideration to the information available from these meetings; indeed, some members have actively participated in these meetings.

It may be recalled that about a year ago recommendations relating to the manufacture and testing of live poliovirus vaccines were issued to facilitate the entry of interested manufacturers into this complex field. Last week the Committee met with the manufacturers and other interested persons in order to review these recommendations.

Revisions to these earlier recommendations, which will serve as the basis for adoption of regulations for manufacture and testing of the vaccine, have been agreed on by the Committee. These include the virus strains to be used, the general processes of manufacture to be followed, tests to be applied during manufacture, and factors relating to the continued safety, purity, and potency of the vaccine.

The Service's Division of Biologics Standards is moving with all speed to complete technical details of the final regulations while the manufacturers proceed with preliminary steps toward meeting these requirements. These details will be available in the near future.

In addition, I have received a general short report from the Committee (see page 573). On the basis of these recommendations, it is considered that live poliovirus vaccine is suitable for use in the United States. It is now possible to visualize the licensing of the establishments for manufacture and sale of these products when the manufacturers have individually demonstrated the necessary experience and ability to produce material which conforms with the requirements.

It is not anticipated that the vaccine will be available in any quantity for a number of months, and it is doubtful whether substantial supplies will be available before mid-1961. In any case, I consider it important to note the Committee's recommendation for the integrated use of the live polio vaccine with the presently available vaccine and for the rather special requirements concerning use of live poliovirus vaccine in the American population. I shall take up certain of the problems raised by the Committee regarding the optimal use of live poliovirus vaccine in the United States with appropriate advisory groups, such as the State and Territorial Health Officers and representatives of the medical and health professions and of the voluntary health agencies.

LEROY E. BURNEY, M.D.
Surgeon General, Public Health Service, Department of Health, Education, and Welfare

NEW CLINICAL CENTER STUDIES ON COLON AND RECTAL CARCINOMA

The coöperation of physicians is requested in studies on colon and rectal carcinoma recently initiated at the Clinical Center, National Institutes of Health, Bethesda, Md. Encouraging results in the treatment of gastrointestinal carcinoma have been reported using the pyrimidine analogues 5-fluorouracil and 5-fluorodeoxyuridine. However, other reports have raised the question of their effectiveness.

The Chemotherapy Service of the National Cancer Institute is conducting studies of these agents in carcinoma of the colon and rectum in order to better define their place in the treatment of metastatic gastrointestinal neoplasm. The side-effects of these agents may be considerable, so patients must be in good general condition in order to tolerate adequate doses. Also, the presence of tumor masses which can be either measured directly or demonstrated on roentgen films is necessary in order to determine the antitumor effect of the drugs in short trial periods.

Patients can be accepted for these studies if they are ambulatory, have normal leukocyte count, renal and hepatic function, and if they have metastases in the lung, peripheral lymph nodes (such as supraclavicular or cervical) or skin.

Referrals of such patients will be greatly appreciated. Physicians who wish to have their patients considered for study at the National Cancer Institute may write or call Dr. Clyde O. Brindley or Dr. Paul P. Carbone, National Cancer Institute, Bethesda 14, Md. (telephone Oliver 6-4000, Extension 4251).

THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

IN & OUT OF FOCUS

By the Observer

The Party Line Dissenters in any organization are never popular, especially where there is no reason for their discontent except they are against the "in's." However, there are those who serve a worthwhile purpose because they are both reasonable and constructive. These are the individuals with whom these comments are concerned.

In the past years organized medicine strongly disapproved of minority groups within its ranks. This was especially evident when the subject under discussion was of a controversial nature and the position taken differed from policies which had been adopted. In fact, those in authority frequently made it clear that those who failed to adhere to "the party line" were disloyal and were not entitled to be heard either from the organization's rostrum or through its journal.

Times have changed and a number of medical organizations have become much more liberal in this respect. The Medical Society of the District of Columbia has been in this group for many years. Some years ago, in the heat of the fight over compulsory health insurance, its journal not only published opposing views on the subject but the Society invited to its rostrum such ardent proponents of compulsory insurance as Senator James E. Murray of Montana.

In recent years, the American Medical Association has also become far more tolerant in its attitude toward those in and out of the profession who do not agree with its policies. For example, a year ago the Association's Council on Medical Service sponsored a National Congress on Prepaid Health Insurance. On the program were not only representatives of voluntary health insurance plans endorsed by the AMA but of such controversial organizations as the Community Health Association of Detroit, Michigan, the Permanente Medical Group of California, and the Union Health Service, Inc. of Chicago. Such a program sponsored by the AMA a few years ago would have been unthinkable. Incidentally, editorial policies of the Association's *Journal* have also been liberalized.

These observations are not intended to suggest that the Association or any other medical organization should vacillate with respect to its convictions. On the contrary, it should stand firmly by the position it has adopted after thoughtful deliberation. However, it will be in a much more secure position if it sees to it that all sides of a controversial issue are presented to its membership. If this is done, the majority of physicians can be counted on to come to sound conclusions. If these should vary from policies which have been adopted, those in authority would be wise to have a close look at them. The day when physicians will blindly follow "the party line" is fortunately past.

* * *

When a Killer Calls

How can a physician protect himself against the stranger intent on doing him serious bodily harm who requests him by telephone to make a home visit? The recent kidnapping and murder of Dr. Edward R. Bartels, of Dubuque, Iowa, by an ex-convict prompted the *AMA News* to seek the advice of the Law Department of the American Medical Association because "occurrences like the tragic case of Dr. Bartels are more frequent than most people realize."

"Police blotters around the Nation," the *News* states, "reveal a number of instances where doctors have been summoned on spurious house calls, only to be robbed or slugged by thieves or drug addicts."

On some calls the doctor needs police escort!

The Department responded to the *News'* query with the following "safety rules":

> "He should ask the person calling for the phone number and address from which the call originates. After hanging up, he should wait several moments and then return the call, especially to determine if it was placed from a pay station.
>
> "He may also call the telephone company to verify if the phone number is for the location given. The physician should be alert if the call came from a pay station.
>
> "Police will offer protection, when requested, to physicians answering emergency calls. If the doctor's suspicions are aroused but he still thinks he should answer the call, he may phone the police and ask for protection to accompany him.
>
> "If the telephone request is obviously a fake, he still should call the police to notify them of the incident. By doing so, he may save the life of another doctor who receives a later call."

The Department urges that the physician not fight with a robber, because, in so doing, he not only endangers himself but he is "doing neither himself nor the public any service." He can best perform this service by noting the age, coloring, and other characteristics of the robber. Under certain conditions, it may be necessary for the physician to obtain authority to carry a weapon for self-protection.

The Society's telephone exchange, Medical Bureau, handled some 3,946 so-called emergency calls for physicians in 1959. With few exceptions these were calls from strangers who did not have a family physician. In no instance, according to the Bureau's supervisor, was the life of a physician endangered. There were, of course, calls from drug addicts and alcoholics, with many of whom the Bureau has become well acquainted. When physicians respond to calls from these individuals they are well aware of all the circumstances. There have been a few attempts to compromise physicians making these calls, but with little success.

The Bureau makes it a practice when it relays calls from patients who do not have a physician to ask the doctor to call the person seeking medical attention. The doctor then verifies the source of the call and the need for a home visit.

* * *

Ten Principles

It would be interesting to know how many members of our Society have read the AMA's Principles of Medical Ethics. We suspect that there is a sizable number, if not a majority, who have not done so. It goes without saying this is a document with which every physician should be familiar.

A few years ago certain sections of the Principles were the subject of heated debate in the AMA's House of Delegates. This was to a considerable extent generated by the definition of "contract practice." However, there were also other provisions which came in for severe criticism. As a result, the House concluded that the Principles should be rewritten with the view of deleting ambiguous language. The committee given this assignment decided to submit a very much abbreviated version, which was finally adopted in 1957.

Because their brevity permits their inclusion in this column, the Principles are reprinted in the hope that our readers will take the few minutes required to familiarize themselves with them.

Principles of Medical Ethics

Preamble.—These principles are intended to aid physicians individually and collectively in maintaining a high level of ethical conduct. They are not laws but standards by which a physician may determine the propriety of his conduct in his relationship with patients, with colleagues, with members of allied professions, and with the public.

Section 1. The principal objective of the medical profession is to render service to humanity with full respect for the dignity of man. Physicians should merit the confidence of patients entrusted to their care, rendering to each a full measure of service and devotion.

Section 2. Physicians should strive continually to improve medical knowledge and skill, and should make available to their patients and colleagues the benefits of their professional attainments.

Section 3. A physician should practice a method of healing founded on a scientific basis; and he should not voluntarily associate professionally with anyone who violates this principle.

Section 4. The medical profession should safeguard the public and itself against physicians deficient in moral character or professional competence. Physicians should observe all laws, uphold the dignity and honor of the profession and accept its self-imposed disciplines. They should expose, without hesitation, illegal or unethical conduct of fellow members of the profession.

Section 5. A physician may choose whom he will serve. In an emergency, however, he should render service to the best of his ability. Having undertaken the care of a patient, he may not neglect him; and unless he has been discharged he may discontinue his services only after giving adequate notice. He should not solicit patients.

Section 6. A physician should not dispose of his services under terms or conditions which tend to interfere with or impair the free and complete exercise of his medical judgment and skill or tend to cause a deterioration of the quality of medical care.

CODE OF ETHICS

"Quiet! . . . I'm supposed to respect the patient's dignity!"

Section 7. In the practice of medicine a physician should limit the source of his professional income to medical services actually rendered by him, or under his supervision, to his patients. His fee should be commensurate with the services rendered and the patient's ability to pay. He should neither pay nor receive a commission for referral of patients. Drugs, remedies or appliances may be dispensed or supplied by the physician provided it is in the best interests of the patient.

Section 8. A physician should seek consultation upon request; in doubtful or difficult cases; or whenever it appears that the quality of medical service may be enhanced thereby.

Section 9. A physician may not reveal the confidences entrusted to him in the course of medical attendance, or the deficiencies he may observe in the character of patients, unless he is required to do so by law or unless it becomes necessary in order to protect the welfare of the individual or of the community.

Section 10. The honored ideals of the medical profession imply that the responsibilities of the physician extend not only to the individual, but also to society where these responsibilities deserve his interest and participation in activities which have the purpose of improving both the health and the well-being of the individual and the community.

Every physician, following his election to membership in The Medical Society of the District of Columbia, must sign an obligation which states that he will be bound by the Principles. Although conformity with them is not incumbent on non-members, they rarely fail to observe them. Thus, the Principles have become universally accepted as basic rules governing professional conduct.

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Population Explosion

The impact of the "population explosion" is the subject of an article by Philip M. Hauser, Professor and Chairman of the Department of Sociology and Director, Population Research Training Center of the University of Chicago, which appears in the *Population Bulletin* for August 1960. Mr. Hauser estimates that in the 20 years between 1940 and 1960, the population in the United States increased by some 48 million. If the trend continues in the following 20 years, by 1980 there will be another 80 million, at which time this country will be a nation of 260 million persons. Looking ahead a century, that is, until 2050, the population could conceivably be one billion.

"Finally," Mr. Hauser observes, "the same rate of growth continued for less than 800 years would produce one person in the United States for every square foot of land surface. This prospect, quite remote in terms of the human life span, is but an instant in time in the perspective of the evolutionary development of man."

He then warns that "Such projections of population are admittedly no more than fictions. Anyone who claims to know what the future population of this nation, or any area, is going to be is either a fool or a charlatan. For we do not yet have sufficient knowledge to predict the course of the birth rate. Nevertheless, such projections are much more than exercises in arithmetic. They indicate the implications of observed rates of growth."

The growth which has occurred since the end of World War II and the concentration of population in urban and metropolitan centers have, according to Mr. Hauser, "quickened the tempo of social and cultural change and has, thereby, added to the frictions and tensions of daily living" and "drastically altered our patterns of thought and action."

Although, admittedly, these developments "have brought with them many material and cultural advantages, [they] have also precipitated or worsened many new types of problems—family disorganization, delinquency, alcoholism, drug addiction, unemployment and political corruption."

Another development which, according to Mr. Hauser, is the result of population growth is the "dire physical problems which confront our urban and metropolitan areas." Blighted or obsolete areas and conservation of aging physical plants, he states, urgently need attention. Traffic is also rapidly becoming a critical problem. Expansion of government functions on all levels—Federal, state and local—"spells increased governmental interventionism into the American economic and social affairs of the American people."

What effect will this situation have upon the practice of medicine? If correctly quoted in press dispatches, Dr. Peter H. Forsham, of the University of California Medical School, is of the opinion that in the next 40 years the principal role of a physician will be that of a wise and good friend of the patient whose diseases will be diagnosed by computers and treated by technicians.

The goal of medical science, he states, will be to keep the patient happy and pain-free up to the last minute of life. Some of the current diseases, he prophesies, will disappear and new ones will take their place. The average life span will reach 100 years compared to 70-odd years as at present.

"Seventy-five . . . ? You can sit there another quarter of a century!"

Physicians in 2000 A.D. will give their patients less attention because the world's population will have increased to such an extent that it will be impossible for physicians to "keep up" with the growth of the human species.

If some of these predictions have any validity, many of us will be glad to have lived our adult lives in the mid-twentieth century.

★

Medical Care of the Dying

Elsewhere in this issue there appears a letter from Dr. Watson W. Eldridge, long-time Medical Officer at St. Elizabeths, now living in Florida. Dr. Eldridge expresses his approval of an editorial by Dr. Paul Chodoff, entitled "The Dying Patient," which appeared in the August issue of MEDICAL ANNALS. He considers it "a fine exposition of the situation in which the physician often feels a sense of great inadequacy."

Dr. Eldridge also refers to a paper on "The Care of the Dying," by the late Dr. Alfred Worcester,[1] Professor of Hygiene at Harvard University, which was read at a meeting of the Academy of Medicine of Cincinnati in 1932. In view of Dr. Eldridge's high praise for Dr. Worcester's dissertation, your Observer requested a copy, which he kindly forwarded with further comments on the subject matter.

At one point in his latest communication, Dr. Eldridge states: "The sight of a dying patient being tortured with tubes in every body orifice, needles in collapsed veins, multiple punctures of breast tissue, in seemingly frantic effort to restore the unrestorable, always had the effect of rousing my anger."

Dr. Chodoff had something to say on this subject too. He observed:

> "The physician whose patient has failed to respond to medical treatment and for whom realistic hope of recovery has been abandoned now has the duty of making as comfortable as possible whatever space of life remains to the suffering human being under his care. This includes the provision of appropriate pain-relieving therapeutic measures and the making and carrying out of decisions as to what the patient is to be told about his condition. In instances of prolonged dying, this may include the decision that life-prolonging treatment is no longer a gift but only a prolonging of agony, depriving the patient of an opportunity to die with dignity and leaving his relatives exhausted and terrified."

On the same subject, Dr. Worcester had this to say:

> "The signs of approaching death ought to be unmistakable. . . .
>
> "However painless the final stage, discomfort and suffering are only too possible in the earlier stages of dying. Much of this is avoidable. Some of it, as we have seen, is due to lack of proper treatment or to wrong treatment of the patient. In the latter case the harm is generally from failure to recognize that the treatment

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[1] WORCESTER, A.: J. Medicine (Cincinnati), April 1932; reprinted, South. Med. & Surg. (Charlotte), June 1932.

needed is radically different from what is appropriate when restoration is possible, as, for instance, in giving nourishment and stimulants when there is not only no possibility of their absorption but also great danger of their regurgitation, or their inspiration. Only less fatuous is applying artificial heat after the heat regulation center of the body fails. All such disturbance of the dying patient is inexcusable. It may be easier in such a case, as it often is in other exigencies, for the physician, against his own judgment of what is best for the patient, to surrender to the prejudices or desires of agonized relatives who do not understand and so cannot accept the facts. All of the physician's patience, tact and sympathy are then needed, and, above all, his firmness. If he is unremitting in his attention to the patient he will eventually win the confidence and gratitude of the family; and meanwhile, what is of far more worth, he will have the satisfaction of knowing that he is doing as he would be done by."

Later Dr. Worcester comments on the attempt at revival of life in bodies "which if left undisturbed would never move." Modern methods of resuscitation, he stated, are obligatory "where valuable lives might thus be saved," but these "are most decidedly out of place where by disease or accident the body's usefulness has ended. Especially is this true where resuscitation would only renew the patient's suffering.

"Such attempted defiance of Nature is even less justifiable than efforts for the prolongation of life when the inevitable approach of death offers merciful release. And yet in both of these ways too many of our profession seem to believe themselves in duty bound to do their utmost. They ought to know better. Just as the dying ought to be allowed to depart in peace, so after their apparent departure their bodies should not be too immediately disturbed. Even if it would have no effect upon them such disturbance of the dead robs the bereaved bystanders of the sense of perfect peace that otherwise would be their consolation."

These are merely fragments of Dr. Worcester's paper which, as Dr. Eldridge has pointed out, is rewarding reading for any physician.

T. W.

RECOMMENDATIONS OF PHS COMMITTEE ON LIVE POLIOVIRUS VACCINE

The Committee considers that field studies of oral poliovirus vaccines have advanced our knowledge to a stage where recommendations relating to its manufacture can now be written.

The Committee also has considered the need for careful analysis of the problems associated with adapting such vaccines to immunization programs in this country and has made recommendations thereon.

Vaccine Characteristics and Strain Selection

In line with its efforts to further the progress of immunization against poliomyelitis, the Committee met on August 19, 1960 with technical representatives of potential manufacturers, with other interested persons, and with the staff of the Division of Biologic Standards for the purpose of reviewing the proposed requirements for the manufacture and testing of live poliovirus vaccine. The amended requirements, which outline the manufacturing and testing objectives, will become available shortly from the DBS and should be helpful in assisting those manufacturers who wish to enter into production. It is hoped that manufacturers can proceed without delay to develop the necessary experience for the mass production of live oral poliovirus vaccine.

The Committee believes that 3 factors when considered together make possible its recommendation regarding strain selection. These factors are (1) neurovirulence in monkeys, (2) viremia in man, and (3) field experience with all candidate strains. The Committee again emphasizes the need for definitive information on the question of viremia in man.

The Committee considers that of the strains available for preparing live oral poliovirus vaccine the Sabin Type I and Type II strains possess the most favorable laboratory and field characteristics and recommends their use. The Committee also recommends the use of the Sabin Type III strain, which is satisfactory from the point of view of neurovirulence, although it has less than optimum immunogenic capacity and shows a tendency to change its neurovirulence characteristics after passage in man. The Committee urges the continued search for a superior Type III strain. All candidate strains other than those of Sabin which have been studied extensively are of greater neurovirulence for monkeys than the selected reference.

The Committee expresses the view that neurovirulence for monkeys is the most important laboratory criterion available. This criterion was used for selecting candidate strains and is still the only measurable laboratory property which can be assumed to be correlated with neurovirulence in man. On the basis of the information available the Committee recommends that the intrathalamic test in monkeys be adopted as the criterion for neurovirulence and that, in order to be suitable for vaccine manufacture, strains should exhibit little or no evidence of neurovirulence when inoculated in this manner into monkeys. The Committee considers that any strain which shows neurovirulence for monkeys by causing paralysis when administered by the intramuscular route is unsuitable. The Committee recommended that the intraspinal test be retained mainly as a measure of the susceptibility of the monkeys used. It recommends that the Sabin Type I strain be used as a reference in the conduct of these tests.

The Committee took cognizance of the great contributions of Dr. Cox and of Dr. Koprowski, who with their colleagues promulgated the concept of live oral poliomyelitis vaccine and who, using their own attenuated strains, provided much of the crucial information which advanced the development of this new vaccine.

The Committee concludes that the field data now available indicate that, while good levels of immunity can be obtained under certain conditions, such levels can only be assured by repeated doses. Schedules of administration will depend upon local conditions, since capacity "to take" or "immunogenic effectiveness" of these vaccines is influenced by a number of factors, the most important of which is the prevalence of other enteroviruses in the community being immunized. The Committee does not believe that the capacity of any strain to immunize is such that the neurovirulence requirements should be compromised.

NEED FOR PLANNED USE OF LIVE VACCINE

In view of the fact that the Nation-wide programs with killed virus vaccine failed to achieve the hoped for elimination of all epidemics of paralytic poliomyelitis, the Committee emphasizes the need for critical assessment of the place of live poliovirus vaccines in the overall picture of poliomyelitis prevention in the U.S.A. The uncoördinated use of live poliovirus vaccine is unlikely to accomplish more than has been achieved with inactivated poliomyelitis vaccine as presently employed. It appears probable that only a unified national program which utilizes each of the available types of vaccine to its best advantage can accomplish the total prevention of outbreaks.

The Committee must also emphasize that when live poliovirus vaccine becomes available generally in this country, its use will be more appropriate on a community basis than on an individual basis. This will depend upon a number of factors, and special recommendations will be necessary for the guidance of physicians, public health officials, and others who will be engaged in such programs. Attention should be given to such matters as administration to special groups, e.g., very young children, pregnant women, susceptible adults, and others, and even more important is the planned continuation of this program as long as necessary to achieve and maintain the required results.

The Committee supports the view that the Public Health Service has a function to perform, extending beyond its regulatory responsibilities, to the end that a satisfactory live poliovirus vaccine may not only be made available at an early date but that it may be properly integrated into the total pattern of infectious disease prevention in the U. S. A.

Because of the unique nature of live poliovirus vaccine, with its capacity to spread the virus in a limited manner to non-vaccinated persons, the Committee cannot make recommendations for manufacture without expressing concern about the manner in which it may be used. The seriousness of this responsibility can be illustrated, for example, by the known potentiality of reversion to virulence of live poliovirus vaccine strains and the possible importance of this feature in the community if the vaccine is improperly used. For example, the vaccine

(*Continued on page 600*)

ANNUAL REPORTS

REPORT OF THE CHAIRMAN OF THE EXECUTIVE BOARD

The most significant event of the past year where Washington physicians are concerned was the enactment by Congress of the Federal Employees' Health Benefits Act. Obviously, this law will have a far greater impact on the practice of medicine in the District of Columbia than in other parts of the country because of the large number of Government employees. The Society's Committee on Medical Care is well aware of this and is keeping itself informed of changes that may occur and of the difficulties encountered in its administration. From time to time the Committee will report to the Executive Board developments of interest to the medical profession and the Board in turn will communicate them to the Society's membership.

As in the past, this report is largely concerned with the major activities of the Executive Board since the last Annual Business Meeting.

Postgraduate Education

In last year's report the Chairman of the Board reported that the Committee on Postgraduate Education had been reorganized with the view of including in its membership representatives of Washington's 3 medical schools and 9 hospitals. The object of this representation was to bring about closer coöperation between all medical institutions in the District in an effort to coördinate the scientific programs presented. Progress has been made; however, much remains to be done.

As indicated in the Secretary's report, attendance at the various meetings sponsored by the Committee has ranged from excellent to only fair. The Annual Scientific Assembly and the Midwinter Seminar are still the mainstays of the Society's educational program for physicians. It is hoped that greater progress will be made in the next year toward expansion of the scientific program and a unified effort in this field.

By the time this report appears, the series of Postgraduate Lectures on the Basic Sciences will be well under way. This is one of the more ambitious educational projects undertaken by the Committee and it is expected that it will be very well received.

Public Health

On recommendation of the Section on Neurology, Neurosurgery and Psychiatry, the Executive Board approved a survey proposed by the National Institute of Neurological Diseases and Blindness of the epidemiology of multiple sclerosis and related demyelinizing diseases in the Washington Metropolitan Area. The Board also gave its approval to a limited survey of the quality of diagnostic evidence of deaths from cardiovascular-renal diseases conducted by the National Heart Institute and the National Office of Vital Statistics.

The Committee on Public Health disapproved the proposal that the D. C. General Hospital be separated from the Health Department. At the same time it voted its full confidence in Dr. Daniel L. Finucane, Director of Health for the District of Columbia. The Board gave its unanimous support to these actions.

The Committee on Public Health was informed that physical examinations to determine the eligibility of persons applying for public assistance have for some time been made at the D. C. General Hospital. Diagnostic facilities and services available at the Hospital for this purpose, it was reported, were inadequate. It was proposed that the examinations be made at the Northwest Central Clinic. Both the Committee on Public Health and the Chairman of the Committee on Rehabilitation and Chronic Illness approved of the proposed transfer and the Board concurred.

Dr. R. Lomax Wells, Medical Director of the Chesapeake and Potomac Telephone Company, proposed that the Society, through its Committee on Public Health and in coöperation with the Department of Public Health, concern itself with ways and means of educating the public in an effort to reduce home and highway accidents. The Committee approved of Dr. Wells' proposal in principle but referred the matter to the Committee on Public Information and Education for its consideration.

The proposal to include vitamins in the school lunch program in the District of Columbia was considered by the Subcommittee on Child Welfare and the Committee on Public Health. They recommended to the Board that "since it has been legally established in the District of Columbia that vitamins are considered medicine, the Subcommittee on Child Welfare recommends the inclusion of vitamins in the school lunch program only on an individual basis upon recommendation of the school physician and with the consent of the parents." The Board concurred.

Mental Health

The following resolution, adopted on November 28, 1959, by the Committee on Mental Health, was forwarded to the Executive Board:

> "WHEREAS no funds are currently available for the psychiatric examination of indigent defendants by private psychiatrists in criminal cases, and
>
> "WHEREAS such examinations are at times necessary and desirable, and
>
> "WHEREAS the Committee on Mental Health of The Medical Society of the District of Columbia favored the development of a program to provide for such services; therefore be it
>
> "RESOLVED that consultation be requested with the appropriate committee of the District of Columbia Bar Association with the view to formulating such a program."

The Executive Board unanimously approved the above resolution, which was forwarded to the D. C. Bar Association. To date no action has been taken by that organization.

In response to a communication from Dr. Daniel L. Finucane, Director of Health for the District of Columbia, and with the approval of the Subcommittee on Alcoholism and the Committee on Mental Health, the Board voted to sponsor jointly with the Washington, D. C. Area Council on Alcoholism a community-wide Conference on the Alcoholic Employee, held at the Hotel Statler-Hilton on March 18.

Aging

Early in the year the Society's Committee on Aging made a survey to determine the facilities and services available in nursing homes conducted by religious, fraternal and other organizations in the Metropolitan Area. The results of this investigation have proved valuable to the Council on Aging, which is the official body appointed by the District Commissioners investigating the problems of the aging prior to the White House Conference.

Since the Council came into existence the committee has not been as active as previously. Several members of the Society are serving on Council committees. Dr. Andrew G. Prandoni is Chairman of the Council's Committee on Health of the Aging, Dr. Otis R. Farley is Chairman of its Committee on Rehabilitation, and the Secretary is Chairman of its Committee on Economic Problems of the Aging. Dr. Jack Kleh, Chairman of the Society's Committee, is also Chairman of the Council.

Committees of the Council will submit final reports of their activities and recommendations sometime in early October. These reports along with those from all the states will be considered at the White House Conference on Aging, to be held in Washington in January, 1961.

Public Policy

The Executive Board endorsed a statement by the Hospital Council which appeared in local newspapers urging that adequate funds be made available immediately by the District Government for the care of the indigent in voluntary hospitals. An immediate press release was issued by the Board to the effect that unless the necessary funds were forthcoming in the near future, some hospitals would have to abandon care of the indigent.

On recommendation of the Committee on Public Policy, the Board registered its opposition to H. R. 7966, a bill which would place optometrists in the position of primary consultants within the Department of Medicine and Surgery of the Veterans Administration, "a position which the optometrist is wholly unqualified to fulfill both professionally and legally."

The following legislation was also disapproved by the Committee:

> A bill which would provide additional revenue for the District of Columbia, included in which was the Unincorporated Business Tax. (The Committee sent a questionnaire to all Active members of the Society for the purpose of determining the reaction of the membership. Opposition to the enactment of the legislation was registered by a large majority.)
>
> Proposed legislation amending the D. C. Unemployment Compensation Act and increasing benefits substantially.

The Board supported the Committee's actions.

At the request of the Executive Board, a communication was addressed to Judge Joseph G. McGarraghy by the President, Dr. Victor R. Alfaro, urging Dr. Preston A. McLendon's reappointment to the D. C. Board of Education. The reappointment was subsequently made.

On recommendation of the Committee on Public Policy, the Board approved in principle, and with minor changes, S.675, a bill to regulate the practice of physical therapy by registered physical therapists in the District of Columbia. This was a reversal of the position previously taken by both the Committee and the Board.

The Board reiterated its position that there was a need for an adequate convalescent hospital in Washington. Subsequently legislation was introduced providing for the establishment of such an institution. No action has yet been taken by the Congress on the bill (S.2979).

MEDICAL CARE

Speaking for himself and a number of friends, Dr. William Earl Clark wrote the Executive Board seeking endorsement of a contemplated trust fund to which anyone could make gifts or bequests, the income from which could be used to pay hospital costs (not doctors' bills) for deserving indigent persons. The Board gave its approval.

Upon the request of the Medical Service of the District of Columbia and commercial insurance companies, the Committee on Medical Care voted to recommend that a separate review committee be created to which companies writing major medical coverage might submit questionable medical bills for arbitration. The Board voted that such a committee be established with the provision that it would not only serve commercial companies but Medical Service as well, and with the understanding that the Society would incur no expense in connection with its operation.

Dr. Raymond T. Holden, the Society's senior delegate to the American Medical Association, chairman of a special subcommittee of the Board, submitted for the Board's consideration a resolution calling upon the AMA's House of Delegates to direct its Board of Trustees "to prepare a concrete and positive medical care plan in keeping with the ideals of the Association for that segment of our population which has reached the age of 65 years and that this plan be offered as the positive recommendation of this Association," and that the House of Delegates, "recognizing that the proposals for the care of the older segments of the population represent just the beginning of a program which may eventually include the entire population, direct the Board of Trustees of the Association to prepare definite proposals which would provide for medical and hospital care for the entire population and that these proposals be offered as the positive recommendation of this Association."

The Board approved a canvass of voting members to determine their views with respect to the resolution. The final vote was as follows: 612 for, 24 against. In view of the favorable response, introduction of the resolution in the House of Delegates at the AMA's meeting in June was authorized. The resolution was introduced by Dr. Holden but was not favorably acted upon by the House.

PUBLIC INFORMATION AND EDUCATION

In line with recommendations of the Committee on Public Health, the Board referred the proposal made by Dr. R. Lomax Wells, Medical Director of the Chesapeake and Potomac Telephone Company, that the Society, in conjunction with the Department of Public Health, "might concern itself with ways and means of educating the public in efforts to reduce home and highway accidents" to the Committee on Public Information and Education.

The Committee prepared illustrated first-aid posters for distribution to the public. Their availability was widely publicized. To date over 1,200 requests for posters have been received from the public at the Society's Executive Offices.

The Committee also informed the Board that 39 physicians had appeared on NBC-TV in 5-minute telecasts entitled "Health Capsule." These telecasts were presented in connection with the program known as "Inga's Angle." Public reception of them was reported to be excellent.

The Board approved the selection of the Service Guild of Washington as recipient of the 1960 John Benjamin Nichols Award. This award is given to the individual and/or organization which during the past year has made the outstanding contribution to the health of the community.

Reported also to the Board was the fact that the Committee on Public Information and Education had revised the panel of specialists and general practitioners furnished Washington newspapers for the convenience of their reporters. The panel is used by reporters when seeking interpretation of medical news reports.

REHABILITATION

The Council on Rehabilitation concluded its 3-year study on February 1, 1960. The Board was highly pleased with the study and voted to commend the Council and its administrative staff for their significant contribution. The complete report (256 pages) was made available on a courtesy basis to the Office of Vocational Rehabilitation, members of the Council, participating agencies, the AMA, selected individuals and groups locally. The complete report is being sold to others for $1.50 per copy. Funds derived from this source will be set aside for the use of the Society's Committee on Rehabilitation and Chronic Illness.

OTHER IMPORTANT ACTIVITIES

Dr. C. Willard Camalier, Jr. was chosen by the Executive Board to receive the 1960 Certificate for Meritorious Service. . . . The Society sponsored jointly with the Metropolitan Washington Board of Trade the "Health-U.S.A." Awards luncheon. Recipients of this year's Awards were: Major General Howard McC. Snyder, MC, USA, Physician to the President of the United States; Mr. Elmer H. Bobst, Chairman of the Board, Warner-Lambert Pharmaceutical Company; and Dr. Donald H. Stubbs, Chairman of the Board, National Blue Shield Commission. . . . The Board endorsed appointments of Drs. Wyrth Post Baker, Horace H. Custis, Jr., and Edgar E. Quayle to the District's Board of Examiners in Medicine and Osteopathy. . . . Extended an invitation to the American Medical Association's Medical Practice Committee to hold its regional conference in Washington on March 25–27, 1960. . . . Voted to explore the advisability of creating a Medical Committee on Liaison with the Clergy. . . . Communicated with the Medical Society of Virginia suggesting another jointly sponsored annual meeting. The Virginia Society was "happy and pleased to learn that the District Medical Society is willing to have another joint meeting." It was agreed that this meeting should be held at the Sheraton-Park Hotel on October 14–17, 1962 where the Virginia Society had originally scheduled its convention. . . . Invited the Second Vice President of the Society to attend all of its meetings. . . . Extended an invitation to Major General Howard McC. Snyder, Physician to the President of the United States, which he accepted, to be guest of honor at the dinner given for the House of Delegates during the AMA's Clinical Session in Washington, November 28–December 1. . . . At the request of the District Commissioners appointed Dr. S. Hazen Shea as a "private citizen" member of the Appeals and Review Board.

FINANCES

The Constitution and By-laws provides that the Chairman of the Executive Board shall not only report to the Society on matters other than routine considered by the Board during the preceding year, but that he submit the budget for the ensuing year. An estimated budget recommended by the Board for adoption will be sent to the membership before the Annual Business Meeting.

Expenditures of the Society are reviewed monthly by the Finance Committee of the Board, which submits a quarterly statement prepared by the Treasurer showing the income and expenditures as compared with the budget.

Financial records of the Society are audited by Wayne Kendrick and Co., Washington, D. C. The audit takes place immediately after the close of each calendar year. A condensed financial statement prepared by the auditors will appear in the February or March issue of the MEDICAL ANNALS.

In conclusion, it should be understood that the above report contains only the principal activities carried on under the direction of the Executive Board. Any Active or Life member desiring further details about items in this report or activities not included should get in touch with the Secretary, who will be glad to furnish the information desired.

It has been a privilege for me to have served the Society as President, a member of the Executive Board, and in the past year as the Board's Chairman. It has been especially satisfying to me to have had your confidence and support. The years I have served

(*Continued on page 600*)

REPORT OF THE SECRETARY-TREASURER

Because of their nature, annual reports of the Secretary-Treasurer are unavoidably repetitious. For the most part, they are concerned with programs and projects in being and the state of the Society at the close of the organization year, which at this time is only a few months away.

In the opinion of your Secretary-Treasurer, a reading of this report should indicate to those familiar with the Society affairs that our organization is continually broadening its scope of activity. This is as it should be, for any organization worthy of the name cannot remain static. There is ample evidence that the Society has made steady progress and is serving the membership more effectively than at any other time in its history.

Just one more observation. Your Secretary-Treasurer has served this Society many years. Together with a number of you he has weathered many storms which have threatened at times to engulf our organization. Fortunately in the last decade, the Society has encountered comparatively placid waters. However, storm signals are up again. No one can predict where health legislation enacted by Congress in the past year will lead us. One thing is certain, the profession must be wise, far-sighted, courageous, and willing to give realistic leadership in its own field if it is to survive as a free profession.

Scientific Programs

The 28th Annual Scientific Assembly, held on November 23, 24, and 25, 1959, was unusually successful, not only from the standpoint of attendance but from the interest shown by those present in the excellent program. The registration totalled 2,660, of which 1,534 were members of the Society or guest physicians.

The Assembly for 1960 was cancelled because of the AMA Clinical Meeting to be held in Washington, November 28–December 1, 1960. One hundred and 10 members of the Society are serving on the District Society's Committee on Arrangements for the meeting, of which Dr. Donald Stubbs, President-elect of the Society, is General Chairman. The following are committee chairmen: Program, Dr. Alfred Brigulio; Scientific Exhibit, Dr. J. Ross Veal; Color Television, Dr. Charles A. Hufnagel; Motion Picture, Dr. Edward W. Nicklas; Registration, Dr. Oscar B. Hunter, Jr.; Housing, Dr. Ralph D. Whitley; Entertainment, Dr. Marcel Foret; Women Physicians, Dr. Josephine E. Renshaw; and Publicity, Theodore Wiprud.

The Ninth Midwinter Seminar was held in the Society's auditorium on February 10, 17 and 24, 1960. An unusually fine program devoted to "Recent Advances in Drug Therapy—'New Pills for Old Ills' " attracted an average attendance of 175 at each session. The Program Committee was not entirely satisfied with this response but agreed that there was no real cause for complaint.

Less successful were the two Clinicopathologic Conferences held on January 12 and April 13. They deserved far better attendance. The Committee was much disappointed with their reception.

One closed-circuit television program was presented in the Society's auditorium during the year. The Upjohn Company sponsored the ninth in a series of telecasts on April 20, 1960, which originated at the Ohio State University College of Medicine in Columbus. The subject discussed was "Gastrointestinal Problems: Medicine or Surgery?" As usual at telecasts, there was a capacity audience.

Postgraduate Lectures on the Basic Sciences, sponsored by the Committee on Postgraduate Education, have been scheduled for 7 successive weeks beginning October 5, 1960. These, it is anticipated, will be well attended because of the unusual quality of the program.

Medical Annals

For many years the Medical Annals suffered from an acute shortage of scientific material. This situation has changed and in the last year or two there has been ample material from which to make a selection. Needless to say, this has given the Editor, Dr. Wallace M. Yater, great satisfaction. Dr. Yater, who has guided the destinies of the Society's publication for so many years, has high hopes that never again will he have to "scrounge" for papers.

Responsibility for the articles of a general nature has rested largely on the Secretary of the Society, who is Managing Editor, and his assistant, Miss A.

Louise Eckburg. Here, too, there has been in recent years better material on which to draw.

With so many publications vying for the doctor's interest, format, style, and manner of presentation as well as subject matter have become of vital importance. It will be noted that with the September issue there were changes in format, which the Editor hopes will meet with the approval of readers.

This year for the first time subscriptions have been made available to medical students at the reduced rate of $2.00 per year.

Circulation of the ANNALS now stands at 2,925.

MEDICAL BUREAU

The BUREAU continues as a valuable agency of the Society, serving a greater number of members than at any time in its history. The BUREAU, which will be 20 years old on December 1, has operated 24 hours a day since it began operation, without an hour's interruption. There are now 773 physicians using the BUREAU, of which 450 subscribe to the Secretarial Service (private wire) and 297 to Alternate Listing Service.

An analysis of the calls handled in 1959 as compared to 1958 is as follows:

	1958	1959
Messages taken for physicians	227,925	239,671
Telephone calls to reach physicians	169,638	195,112
Emergency calls	4,529	3,946
Telephone calls to reach physicians for emergencies	5,673	5,337
Instructional calls from physicians	162,365	166,844
Referrals (names of three physicians from the Society's list are given in rotation)	37,317	24,673
	607,447	635,583

MEMBERSHIP IN GROUP HOSPITALIZATION

On September 1, 1959, there were 1,269 participants in the Society's group enrolled in Group Hospitalization, Inc. Of these, 1,093 were enrolled under the Preferred Contract and 176 under the Standard Contract.

As of September 1, 1960, the enrollment was 1,227, with 1,090 under the Preferred Contract and 137 under the Standard Contract.

Every effort has been made to get physicians to subscribe to GHI through the Society's group. There is still a sizable number who have not done so. The Society's Executive Offices have been informed that final notice must go to those not subscribing, advising them that effective September 30 there will be no further opportunity for them to participate in the Society's group.

However, new members of the Society will have 60 days after their election to Active membership to subscribe.

MEMBERSHIP

Although the Society's membership continues to increase it would appear that the saturation point has been reached where Active membership is concerned. The following figures show the membership totals at 5-year intervals since 1950.

Membership on September 1	1950	1955	1960
Active	1,329	1,410	1,473
Life	77	71	64
Affiliate	11	17	36
Associate	323	477	580
Honorary	18	25	27
Resident-Intern	4	18	32
Totals	1,762	2,018	2,212

It will be noted that because of its unique geographic location, the Society has a large number of Associate members who hold full membership in nearby Maryland and Virginia. This category has increased rapidly in recent years.

Luncheons are still being held in the Society's Library for newly elected members for the purpose of acquainting them with the Society's aims and activities.

FINANCIAL RESPONSIBILITIES

As reported previously, the Secretary-Treasurer administers the Society's financial affairs under the direction of the Society's Finance Committee, a subcommittee of the Executive Board. The Committee reviews monthly expenditures with the Secretary-Treasurer.

Quarterly the Secretary-Treasurer submits to the Executive Board a report setting forth the Society's assets and liabilities and a comparison of the receipts and expenditures with the year's budget.

VARIOUS OTHER ACTIVITIES

The Secretary appeared on the program at the Professional Relations Conference of Blue Shield Plans in Chicago. He attended the Annual Conference of Blue Shield Plans in Los Angeles, April 3–7, 1960. . . . He also attended the AMA meetings in Dallas, December 1–4, 1959, and in Miami Beach, June 13–16, 1960 with the Society's delegates. . . . The Secretary continued as chairman of the Committee on Economic Problems of the Aged, which is a committee of the D. C. Council on Aging appointed by the District Commissioners. He also participated as moderator of 2 "workshops" held in connection with the D. C. Conference on the Aging on June 8 and September 9, 1960. . . . He represented the Society at the National Congress on Prepaid Health Insurance in Chicago, May 13 and 14, 1960. . . . The Secretary continued as a member of the Board of Directors of the State Medical Journal Advertising Bureau. . . . He appeared on the orientation program of George Washington University School of Medicine for freshman medical students on September 20. . . . Finally he assisted in planning the program for Forum on General Problems in Medical Practice and acted as moderator of one of the panels, "Doctors and Prepaid Medical Care."

CONCLUSION

In the offing as this report was being written is the implementation of the Relative Value Scale. Conferences with Blue Shield officials have been held and others are scheduled for the purpose of agreeing upon a unit of value. When this has been decided upon, approval must be given by the Executive Board and the Society itself. Other organizations are requesting an opportunity to meet with Society officials for the purpose of arriving at a unit value.

Obviously this is a time of testing for voluntary health insurance plans. The Society-sponsored Blue Shield Plan, Medical Service of the District of Columbia, will have its own problems. Survival of this and other Blue Shield Plans will depend in no small degree on the coöperation and support of the physicians.

Your Secretary-Treasurer considers it a privilege to play a part in meeting the challenges confronting the medical profession in these difficult times. He deeply appreciates the confidence shown in him by officers, boards, committees, and members of the Society. Finally, he wishes to acknowledge his gratitude to a loyal and efficient office staff.

THEODORE WIPRUD
Secretary-Treasurer

REPORT OF THE BOARD OF CREDENTIALS

The Board of Credentials is an elected body that screens applicants for membership in the Society. All applications are submitted to the Board of Credentials, which inquires into the standing of each applicant.

Applicants are announced by letter to all Active and Life members. Within 2 months from the date of the announcement, the applicants are invited to appear before the Board of Credentials to be interviewed. After determining whether or not the individuals applying are qualified for membership, the Board thereupon submits its recommendations with respect to each applicant to the Executive Board.

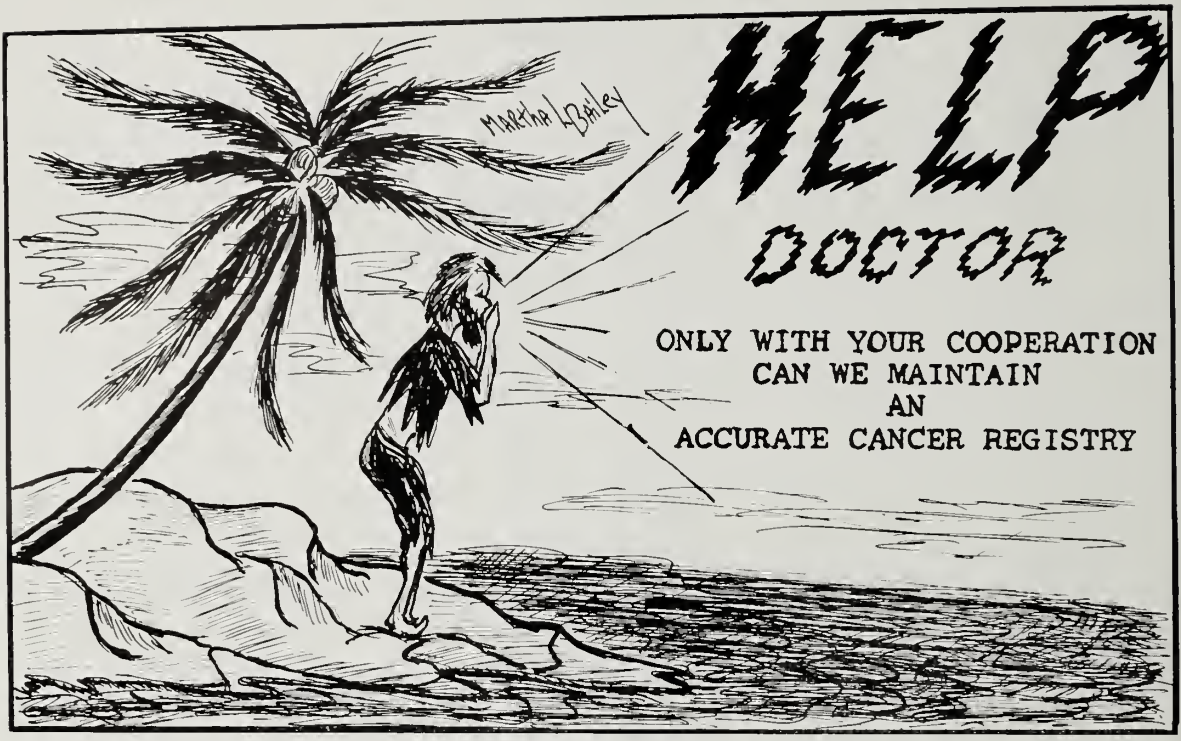
From January 1, 1960 to September 1, 1960, the Board of Credentials has interviewed 42 applicants for Active membership, 21 for Associate, 2 for Affiliate, and 8 for Resident-Intern membership. Of these applicants, 68 have already been recommended for election to membership for a probationary year.

The Board of Credentials thoroughly inquires into the status of each applicant. Letters are written to medical societies and to hospitals to which the applicant has belonged or served to ascertain his membership status and professional standing in these groups. If he has served in the Armed Forces, a photostat of his military record is required to be furnished to the Board so it can determine whether or not he served honorably.

Thus the Board of Credentials exercises every care to assure the Society that only the highest type physicians are elected to membership.

It is with the deepest regret that your Board reports the death of 21 members [see page 598].

Respectfully submitted,
W. ROBERT PERKINS, M.D., *Chairman*



THIS REGISTRY IS VITALLY IMPORTANT TO CANCER CONTROL . . . It is used not only for public welfare but for scientific purposes in helping to determine the greatest areas of need for cancer control in our community. The information is confidential and is used only for statistical and public health purposes.

Forms for reporting the existence of any case of cancer within 30 days from date of diagnosis in accordance with Public Law 83 are available from the Bureau of Cancer Control at the D.C. Public Health Department, 300 Indiana Avenue, N.W., National 8-6000.

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Washington 6, D. C.
EXecutive 3-3690

VOLUNTARY MEDICAL PLANS IN CANADA*

M. R. MacCHARLES, M.D.

Vice Chairman, Trans-Canada Medical Plans, Winnipeg, Manitoba

The medical profession has 2 main functions to perform: first, to advance the scientific knowledge of medicine, and second, to see that medical services are available to every man, woman and child in the country on a reasonable basis. The first objective has been carried out better than many of us ever dreamed possible, but the second objective of insuring a proper distribution of medical service to all citizens is lagging far behind.

The idea of covering the costs of medical services by an insurance formula dates back well over 100 years, maybe 200. The Canadian Medical Association discussed it during the 1914–1918 War, and in the late 1920's approved of the principle of health insurance. In 1934, a comprehensive report on medical economics was published and in 1943 the C.M.A. issued its precedent-shattering statement approving the adoption of health insurance, and in 1944 issued a statement of the principles to be applied. In 1949 they published a further statement favoring the use and extension of voluntary plans, and in 1955 they put forth the following statement:

"The Canadian Medical Association recommends, where it becomes evident that the voluntary medical care plans cannot achieve adequate coverage, that provincial governments coöperate in the administration and in the financial task of extending health insurance to all, through the medium of the voluntary prepayment plans."

It would appear that the thinking of the medical profession changed after the second World War. In the decade of the thirties, up to 1939 when the War started, the profession had suffered along with everybody else in the general depression. Then along came the War in 1939 and everything changed. The profession found a great deal more need for their services and a large number of doctors were taken into the army to serve during 6 or 7 years of military service. For many of these young graduates this was their first experience in medical practice, and possibly molded their future attitudes to practice. After the War was over they came back to a very buoyant and expanding economy which has been increasingly so ever since. Hence, many of the present generation of doctors have never known lean years. Not only was there considerable money in circulation, but the low-income people had been provided with insurance plans, and a higher percentage of money was obtained from these people than would have been the case without the voluntary plans. At the moment there are approximately 25 per cent of all doctors in Canada on salary—a large number in government service of various kinds full-time and part-time, a large number working for insurance companies and for industry—and the attitude of the profession toward government interference in medicine has changed from a stubborn opposition to national health insurance, to a weaker position of agreeing now to accept national health insurance but to have a controlling interest in its administration. How realistic this is remains to be seen.

It is obvious that organized medicine realized that the distribution of medical services to the total population was unsatisfactory. Their response to this awareness was the institution of a series of voluntary prepaid medical care plans sponsored by the profession. It was hoped that by providing voluntary prepaid plans to enable the general population to meet the costs of medical care on an insurance basis in a satisfactory manner, this would make unnecessary any government intervention in this field. This movement of creating voluntary medically-sponsored plans started approximately 20 years ago, and accelerated after the close of the second World War. At the present time in Canada there are 11 such plans in operation. As the original concept in creating these plans was to meet the needs of the low-income people, the service type of plan was the one most commonly selected. Of the 11 voluntary plans operating in Canada at the present time, 9 of them are service plans and 2 are indemnity plans. The indemnity type of plan is operating in New Brunswick and Quebec, and the service plan in all other provinces.

MEDICAL INDEMNITY PLANS

Let us first discuss the medical indemnity plans. The one operating in New Brunswick is Maritime

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* Portion of an address delivered during the 1960 Annual Conference of Blue Shield Plans in Los Angeles, California, April 3–7, 1960.

Hospital Service, which was originally a Blue Cross operation and also sold medical indemnity. It is now attempting to arrange a service contract, but with little success. New Brunswick doctors have been rather indifferent to the idea of trying to stave off government interference in medical affairs by providing a voluntary prepayment plan. This is a good example of those doctors' groups who still think the patients have to come to them and that group-dealing with medical care insurance can be ignored. In the province of Quebec, which is largely French, the medical indemnity type of contract has been sold by the Quebec Hospital Service Association, which was the Blue Cross, and still is until sometime later this year. Besides selling hospital service it sells medical indemnity. The Blue Cross organization will go out of business with the establishment of government hospital insurance this year and will be taken over by Quebec Mutual Insurance Company. All the other 9 plans are selling service contracts, and their attainments, on the average, have been very good.

When we were first organizing the voluntary medical plan in Manitoba during the War years our own previous experience was limited to operating a city-sponsored plan looking after the people on relief in the early thirties, plus another small group that had formed a voluntary organization called "The Firefighters Club," composed of several hundred firemen. We therefore looked further afield for guidance, and one of our main sources of information was the plan in Michigan. We not only found this a mine of information, but we were extended every courtesy on many occasions. When we were arranging our contracts we decided to provide two types: (1) an in-hospital contract which paid only for in-hospital service, which we called the partial plan; (2) a comprehensive plan that paid for services in hospital, in the home and in the office, excluding only services that were already being paid for by some government agency plus preëxisting disease. We anticipated selling probably 90 per cent of our contracts as partial plan, that is, in-hospital service only, and 10 per cent comprehensive plan. We were not in business very long until we found that these figures were completely reversed; 90 per cent wanted the comprehensive plan and only a small minority wanted the partial plan. This situation has not changed. In fact, it has even strengthened, and by far the largest number of contracts are for comprehensive health care. This has been the experience pretty well all across the country.

TRANS-CANADA MEDICAL PLANS

About 1948, with all these provincial plans operating in their own areas and with considerable movement of subscribers from one area to another, with some large employers having employees in 2 or more provinces, and some purely national employers having employees in all provinces, it became necessary to have some central organization to attempt to coördinate these plans so that they could work together, and possibly make special arrangements for national employers. Such an organization was created and called Trans-Canada Medical Plans. This has been in existence for about 12 years and has had a record of very indifferent success, and its future is somewhat precarious. It has done well in the field of coördinating the various plans on exchange of subscribers and in getting business operations within the plans somewhat standardized. One of our important objectives was to try to collectively meet the needs of national employers. While the plans were operating successfully in their local areas, each one was different from all others, and uniformity was conspicuous by its absence. The national employer, as a rule, prefers uniformity. After great labors the Trans-Canada Medical Plans finally came up with a national, uniform, in-hospital contract. This involved considerable compromises on the part of some of the plans, but eventually they agreed to it. We have never sold 1 contract under this plan, the main reason being that all segments of the population, including labor and industry and the public in general, want comprehensive coverage, not partial coverage. In attempting to arrange a national, uniform, comprehensive contract we ran into insurmountable difficulties. The area of disagreement between the member plans was too wide to negotiate. Points on which disagreement was insoluble were these:

1. The importance of natonal employers in the first place.
2. Desirability or advisability of tailor-making a plan to suit a prospective customer.

3. The ultimate objective of our voluntary plans; whether we should aim to cover the whole population or be satisfied, as many of the plans were, if they were doing a reasonably good job in their own local setting, i.e., a minimum objective.

4. The attitude toward commercial insurance companies.

5. Whether Trans-Canada Medical Plans should itself become an underwriter.

In all these 5 areas there was great divergence of opinion which proved to be irreconcilable, so the efforts to even establish a national, uniform comprehensive contract were given up. This having been decided, it was obvious that the future of Trans-Canada Medical Plans was certainly very clouded, and this has turned out to be true.

The national accounts that many of us hoped to acquire included the 2 railways, Trans-Canada Airlines, the federal civil servants, the dependents of the Armed Forces, the banks, and some others. We were able to successfully negotiate a contract with the nonoperating employees of the 2 major railways. This contract is in its fifth year and has been quite satisfactory. It is best described as a composite contract, being composed of the best that each plan could offer in its own province, and is therefore anything but uniform. Also Ontario, the largest province, refused to come in with the rest of the group and it was necessary to get an outside carrier. We also had a contract with Trans-Canada Airlines, but lost it to a commercial carrier. We have failed to obtain any of the other large groups mentioned. Our most notable failure was with the federal civil servants. Most of us regarded this as a key group. Negotiations with the special committee of the federal civil servants were going on over a period of 5 years, and the contract was finally awarded to a commercial organization. So in the field of obtaining national accounts, Trans-Canada Medical Plans has been little better than a failure.

Another area in which conflicting opinions were discovered in the Trans-Canada Medical Plans was the attitude of the voluntary medical plans to the commercial insurance carriers. A fair number of the plans were quite willing to let the commercial carriers get anything they could and did not make any attempt to compete with them. At one time a suggestion was made to the Trans-Canada Medical Plans that it should consider setting up a national underwriting agency corresponding to your Medical Indemnity of America, which would assist the plans in negotiating national contracts and take up any of the contracts that the local plans did not wish to accept. This suggestion was eventually turned down.

The latest development in T.C.M.P. is that the large Ontario plan has asked its sponsoring Ontario Division for permission to withdraw. This could signal the demise of Trans-Canada Medical Plans.

MANITOBA MEDICAL SERVICE

It might not be out of place to give you a short summary of the voluntary plan in Manitoba. A committee was set up by the Manitoba Division of the Canadian Medical Association in 1941, and after about a year's study and some postponement during the War years, the Manitoba Medical Service was inaugurated on the first of October, 1944. This was a strictly service plan, arranged by contract with the doctor for medical services and with the subscriber for premiums. The doctors agreed to take a prorating of their accounts, and the plan now has been in operation for over 15 years. Originally we had 2 types of contract to offer: (1) a partial plan covering medical service in the hospital, and (2) a comprehensive plan covering services in the hospital, in the doctor's office, and in the home. We anticipated that a high percentage of the subscribers would want the partial plan and very few the comprehensive plan. We were completely wrong. About 90 per cent have taken the comprehensive plan, and only a small minority the partial plan. Our plan is now in its sixteenth year and we have 350,000 subscribers out of a total population of 850,000. During these years we think we have learned quite a lot about operating such a plan. We have certainly found out that a service plan is best adapted to the low-income subscriber. We have satisfied ourselves completely that the high-income people demand more service and are therefore more expensive to serve. Having had only the service type of plan to offer, of necessity we acquired a significant number of high-income people, thus running up the average cost to the low-income subscriber. We are convinced that the service plan should only be offered to low- and modest-income groups, probably up to a yearly income of $6,000.00, and that an indemnity or major medical contract should be offered to the income groups above that level. Therefore, we have incorporated a commercial nonprofit insurance company wholly owned by our voluntary plan. It is almost ready to go into business, and we will then be able to meet the requirements of any employer, no matter what his specifications may be. So we are doing in Manitoba what we would like Trans-Canada Medical Plans to have done.

In addition to the 11 plans operating across the country that are sponsored by the Canadian Medical Divisions, there is a host of other small plans and health organizations. The federal health grants have been in operation for 12 years and these cover many fields: the cancer control grant which is used in every province for provincial cancer institutes, the Crippled Children's grant which is used in every province by the Crippled Children's Society, grants for venereal disease control, child and maternal health, medical rehabilitation, heart foundations, arthritis and rheumatism societies, retarded children associations, multiple sclerosis, alcoholism, cerebral palsy and Departments of Veterans Affairs. In addition to these, there are small voluntary medical plans in various provinces, in local areas, that are operating reasonably satisfactorily for both the doctors and the public. In Manitoba, shortly after the second World War, diagnostic units were set up in strategic points in the province. These units consisted of X-ray, pathology and biochemical laboratories operated by full-time government employees plus, at times, part-time consultants. These units are still in operation but have not been an unqualified success. In spite of all these various organizations, and in spite of the voluntary prepaid plans, there are still segments of the public which are not covered, such as the social allowance group, the over-65 retired group, the chronically sick, and some others.

One of the valid criticisms of prepaid plans has been their failure to deal with these so-called uninsurable groups. In every province in Canada the social allowance group has been taken care of by a government-supported plan, usually operated by the medical profession and financed by the government on a fixed sum basis, with prorating. At the moment the Manitoba Medical Service is negotiating with the Minister of Health in an attempt to have the social allowance group insured under the Manitoba Medical Service as an ordinary group, with the government paying the premiums. This would only cover home and office calls, and all hospital work would be free so as not to interfere with the teaching-staff patients.

"Health Region" Experiment

Another interesting experiment has been carried on in the southwest corner of Saskatchewan, with the city of Swift Current as its center. This area, approximately 100 miles square, has been constituted a Health Region, and a full personal health service program was inaugurated in 1946 and is still operating. The important feature of this program is that it is compulsory. Services are reasonably complete with the exception of the occasional outside consultant. The program is directed by a regional board, elected by the municipalities and financed through a system of personal and land taxes. Physicians' services are administered by a medical assessment committee. In 1948 the doctors received 72 per cent of the schedule of fees; in 1949, 64 per cent; in 1950, 68 per cent; in 1951, 66 per cent; while the voluntary plans in the rest of the province were paying 100 per cent. In 1952 it was 67 per cent, and the doctors refused to continue any longer, and then settled for 75 per cent of the schedule of fees, and some deterrents were added. This plan is still operating, and somewhat strange to relate, both the local doctors and the population seem to be satisfied with it.

This, then, pretty well completes the story of voluntary plans for physicians' services up to this moment.

"HOPE" IS LAUNCHED

Project HOPE, the major activity of The People-to-People Health Foundation, an outgrowth of President Eisenhower's people-to-people suggestion made in 1956, is under way.

On September 13, in San Francisco, Vice President Nixon officiated as the former Navy hospital ship, the *S. S. Consolation*, was formally turned over to the Foundation and its own red, white and blue flag hoisted aloft. On the following day, Dr. William B. Walsh, Washington internist, President of the Project, who took part in the dedicatory ceremonies, visited President Eisenhower and presented him with a color photograph of the vessel. *S. S. Hope* sailed from Mission Rock, September 22, bound for Djakarta in Southeast Asia, loaded with tons of drugs and food collected by the Foundation from business, labor and other groups.

The permanent medical staff of *Hope* includes 15 physicians, 2 dentists, 25 graduate nurses, and 30 auxiliary personnel. Volunteer teams of up to 35 physicians will be flown to the ship on a rotating basis for tours of 4 months.

Dr. Walsh states that the first stop will be Indonesia, a country of some 3,000 islands. A lot of time will be spent training intelligent villagers in some of the simple medical skills. About half of *Hope's* 100-man medical staff will be based on the ship. The rest will work in Indonesian hospitals and inland clinics set up in special prefabricated shelters.

The ship has a 230-bed hospital where Indonesian doctors will treat patients under the direction of *Hope* staff members. The ship will also serve as a supply point for food, drugs and equipment for shore-based medical people.

How great is the shortage of doctors in Southeast Asia? Dr. Walsh reports there is 1 doctor for every 71,000 persons in Indonesia; in the United States there is 1 doctor for every 750. "Since they [native doctors] can't be spared to take advanced training in the United States or Europe, we plan to bring the medical school to them"—bearing out Francis Bacon's quotation, " If the hill will not come to Mahomet, Mahomet will go to the hill. "

After 6 or 7 months in Indonesia, the ship will go to Viet Nam for several months. Invitations have also been received from Korea, Okinawa and Pakistan.

Both financial support and supplies have come from the drug and pharmaceutical companies and the petroleum industry. The American President Lines will operate the ship at cost. The American Medical Association and the American Dental Association have made sizable contributions. The Advertising Council is sponsoring a Nation-wide campaign seeking contributions. The first year's operation will cost $3.5 million.

The Executive Board of the Medical Society of the District of Columbia has endorsed the project. Members of the Society and other readers of the ANNALS who wish to share in this endeavor may send their contributions to HOPE, Post Office Box 9808, Washington, D.C. HOPE means Health Opportunity for People Everywhere. Contributions in any amount are most welcome.

Correspondence

DEERFIELD BEACH, FLORIDA, August 20, 1960

TO THE EDITOR:

Compliments to Dr. Paul Chodoff for his excellent article on "The Dying Patient" in the current [August] issue of MEDICAL ANNALS, and to the Managing Editor for its prominent placement in the Editorial Section.

The article is a fine exposition of the situation in which the physician often feels a sense of great inadequacy, and offers valuable advice to the doctor on means for coping with it.

I feel, however, that the subject calls for much further treatment, and I am led to suggest that a paper written by Alfred Worcester, M.D., Sc.D., in 1932, while he was Professor of Hygiene at Harvard University, provides the further treatment suggested above. The paper, entitled "The Care of the Dying," was read at a meeting of the Academy of Medicine of Cincinnati, on February 1, 1932. It was printed in the *Journal of Medicine*, Cincinnati, Ohio, in April 1932 and reprinted in *Southern Medicine and Surgery*, vol. 94, no. 6, June 1932.

It is seriously recommended that those who have read Dr. Chodoff's paper go to the library and acquaint themselves with Dr. Worcester's paper. Together they constitute a classic.

Cordially yours,
W. W. ELDRIDGE, M.D.

WASHINGTON, D. C., August 18, 1960

TO THE EDITOR:

The August, 1960 issue of the ANNALS, on page 61, carries an advertisement by the District of Columbia Division of the American Cancer Society. This unequivocally states, "15 per cent of single nodules of the thyroid are cancer; 5 per cent of multinodular goiters are malignant." I personally would doubt the accuracy of this categorical statement and think that information should be forthcoming as to the data on which these statements are based.* It is well known that the data in favor of malignancy are heavily weighted because it is of operative origin. The single nodules removed by the surgeon often seem suspicious to him clinically, and this is often his sole reason for removing the nodule.

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* EDITOR'S NOTE: A reply to Dr. Daniels' inquiry follows.

Yours truly,
Worth B. Daniels, M.D.

Washington, D. C., September 8, 1960

To the Editor:

I should like to verify the statistics published on the Cancer Page of the August issue of the Medical Annals.

In this country the reported occurrence of thyroid carcinoma in nontoxic nodular goiters varies from 5.6 per cent (Lahey, Hare and Warren, 1940) to 17.1 per cent (Cole, Slaughter and Rossiter, 1945) and in solitary nodules from 9 per cent (Anglem and Bradford, 1948) to 33 per cent (Cattell and Colcock, 1953). These statistics concern only hospital patients and do not apply to the general population.

Yours truly,
T. Winship, M.D.

Vineyard Haven, Mass., August 16, 1960

To Mr. Wiprud:

Long ago I meant to write you an appreciation of the privilege of having our article on the Visiting Nurse Association published in the Medical Annals of the District of Columbia. You were more than generous in giving us so much space and in including the pictures of our nurses "then and now."

The editors are to be congratulated on this splendid magazine. Even I, as a lay member, find almost all of the articles in it of real interest, and the composition and printing are most attractive.

You have been more than helpful in regard to allowing the Visiting Nurses and the Homemaker Service to have informative articles published in the Annals, and the Boards of both of these organizations are very grateful to you and to the Medical Society of the District of Columbia.

Cordially yours,
Mrs. Harold N. Marsh
President, Visiting Nurse Association

Membership

The following applicants for membership were duly elected to membership by the Executive Board, September 26, 1960, in accord with Chapter II, Article VIII, of the Constitution and By-laws of the Society.

Active Members

Chalom A. Albert, Washington Hospital Center
Ganka K. Benderev, 8402 15th Avenue, Hyattsville, Maryland
Jules I. Cahan, 915 19th Street, N.W.
Maurice A. Capone, 5600 Cromwell Drive
Modestino G. Criscitiello, Georgetown University Hospital
Elizabeth A. Crisp, 2475 Virginia Avenue, N.W.
Horace T. Gardner, 1739 N Street, N.W.
John F. Gustafson, 7443 Ninth Street, N.W.
Gerold K. Klein, 2500 Que Street, N.W.
David J. Owens, St. Elizabeths Hospital
Mauris M. Platkin, 4643 Careybrook Lane, Oxon Hill, Maryland
Victor Schocken, 4016 Calvert Street, N.W.
Robert E. Stowell, Armed Forces Institute of Pathology
Milan M. Vuitch, 8204 Grubb Road, Chevy Chase, Maryland
William H. Whitmore, Jr., St. Elizabeths Hospital
Richard A. Wilson, 6932 Eighth Street, N.W.

Affiliate Member

Clarence J. Duke, D. C. General Hospital

Associate Members

Orhan H. Aydinel, 6365 Oxon Hill Road, S.E.
Oshin Der-Stepanian, 3835 Hamilton Street, Hyattsville, Maryland
Elisabeth K. Kalandros, 3421 Brown Street, N.W.
George M. Leiby, 1707 N. Troy Street, Arlington, Virginia
Francis C. Mayle, 8218 Wisconsin Avenue, Bethesda, Maryland
Mustafa K. Mutlu, 5025 Indian Head Highway
C. Lewis Parker, 5241 St. Barnabas Road
John W. Roark, 105 North Alfred Street, Alexandria, Virginia
Owen C. Shull, Avenue B and Third Street, Herndon, Virginia
Vincent P. Sweeney, 1150 Connecticut Avenue, N.W.

Resident-Intern Members

William H. Dickson, 2301 Cathedral Avenue, N.W.
Edward W. Walters, 748 South Florida Street, Arlington, Virginia

The following applicants for membership will be voted on at the meeting of the Executive Board, October 24, 1960.

For Active Membership

Louis B. Balla, Free University of Brussels (Belgium)—1953
Clifford R. Booker, Howard University—1955
Clifton R. Brooks, University of Wisconsin—1946
Julius S. Conner, University of Nebraska—1957
Edna F. Fleischmann, University of Vienna (Austria)—1940
George W. Hyatt, Creighton University—1943
Alma F. Skinner, Northwestern University—1947
Raymond L. Standard, Howard University—1952
Oscar H. Whiting, Howard University—1943

(*Continued on page 600*)

ON THE LIGHTER SIDE

Doctors are people—just like everybody else! They look like people, they act like people, and as people they have their big likes and little likes as well as their big dislikes and little dislikes. They eat when hunger overtakes them, they drink when thirst parches the palate; they sleep and work and are happy and sad just like everyone else. They love and in return are loved by wonderful wives and sweethearts, by their children and sundry relatives—usually according to the largess that filters down to the relative level.

Doctors hurt when they have a pain; they jump like crazy when pinched on a tender spot by playful fingers; they see "stars" when they get a knock on the head; and probably cuss like the usual man when they hit their fingers with a hammer. They feel the heat in summer and freeze in the winter. They enjoy laughter and fun and they cry when sorrow and tragedy strike. Some smoke, some don't—some drink, some won't. Some are fat and some are thin; some are angelic and some have the devil within.

Doctors are therefore very similar to the population as a whole. And since this is so, we have Protestant doctors, Catholic doctors, Jewish doctors, atheistic doctors, Republican doctors, Democrat doctors, Socialist doctors, and independent doctors with both conservative and liberal leanings. Also, it has been said that we have a few Communist doctors among our active practitioners; but be that as it may, doctors do fall into every imaginable human category.

Doctors also vote like people, and this November at the polls doctors will (if they do not live in the stateless, voiceless, gutless, faceless, voteless District of Columbia) follow the dictates of their hearts and minds when they close the curtain behind them in the booth—and vote. Doctors will take advantage of this Constitutional privilege and will vote like the average people they are. Some will vote for—some against. Some will vote Republican—some Democratic; but they will vote if it is at all humanly possible.

Both political parties have excellent young men heading their respective tickets. Both are brainy, knowledgeable, ambitious, shrewd and wise politically. One has had 8 years of close association and on-the-job training under the President as the second high man on the White House totem pole, plus a legislative background of representing his state of California both in the House and the Senate. The other has fruitful years of experience representing his native Massachusetts in the House of Representatives and currently in the Senate. Either man would amply fill the presidency with vigor and vitality. Both men would be on-the-job presidents. Both would be and are a credit to this United States of America. We wish them both well.

Just the other week *The Washington Post Parade* published a poll from data, gathered by the magazine, representing a cross-section of the population. Fifteen important questions facing the Nation today were asked of Republicans and Democrats alike, and all but 4 of the questions were answered exactly alike by both parties except for the percentages of yea's and nay's. However, on the 4 questions that were asked in which the answers differed by party there was no mistaking what was meant. To the question, "Do you believe that the national budget should be balanced before more Federal aid is given to public welfare?" the Democrats voted 59 per cent NO while the Republicans voted 80 per cent YES.

Q: "Do you believe that the Federal Government should give health insurance to the aged?" The Republicans voted 58 per cent NO while the Democrats voted 84 per cent YES.

Q: "Do you favor Federal aid to building more schools and to increase teachers' salaries?" The Democratic vote was 69 per cent YES; the Republican, 72 per cent NO.

Q: "Do you believe that the Government, rather than private industry, should develop atomic power?" Democrats, 59 per cent YES; Republicans, 63 per cent NO.

The 11 remaining questions were answered as alike as peas in a pod.

The only trend that might be drawn from these answers to questions is a trend toward social justice for all from the Democrats and the same rugged, individual state's rights, so to speak, from the Republicans. But remember that the polls will be open to all registered voters on Election Day; therefore, please take full advantage of your privilege to vote and cast your vote for the nominee of your choice. But please wear a black arm band for the voteless District of Columbia!

* * * * *

Chuckle note: Statistics show that there are 3 ages when men misbehave—young, old and middle. . . . Whether you wind up with a nest egg or a goose egg depends a lot on the kind of chick you married. . . . When a wife insists on wearing the pants, some other woman will wear the fur coat, I betcha! . . . Then there was the wife who said, "Waltz a little faster, dear; they're playing a rhumba."

J. Earl Kadan, M.D.

Books Received

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive reviews in the interest of our readers and as space permits. Physicians are urged to submit reviews of additional books which, in their opinion, merit comment.

The Thyroid-Vitamin Approach to Cholesterol Atheromatosis and Chronic Disease: A Ten-year Study, a Monograph. Murray Israel, M.D., Medical Director, Vascular Research Foundation. Paper. Pp. 132. New York: George Press, 1960.

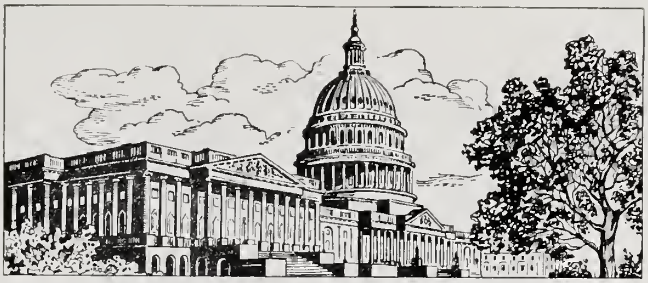
Pardon My Sneeze. The Story of Allergy. Milton Millman, M.D., Fellow, American College of Allergists; Member, American Academy of Allergy; Past President, San Diego Biomedical Research Institute. Pp. 215. San Diego, Calif.: Frye & Smith, Ltd. Distributed by Kuchirka Books, P. O. Box 8144, San Diego 2, Calif., 1960.

Current Surgical Management II. A Book of Alternative Viewpoints on Controversial Surgical Problems. Editors: John H. Mulholland, M.D., Editor-in-Chief, New York University College of Medicine; Edwin H. Ellison, M.D., Marquette University School of Medicine; and Stanley R. Friesen, M.D., University of Kansas Medical Center, with contributions by 50 authorities. Price, $8.00. Pp. 348, illustrated. Philadelphia: Saunders, 1960.

Diseases of the Newborn. Alexander J. Schaffer, M.D., Associate Professor of Pediatrics, The Johns Hopkins Medical School, and Pediatrician to The Johns Hopkins Hospital; formerly Pediatrician-in-Chief, at present Attending Pediatrician to The Sinai Hospital of Baltimore, Maryland; Chief of Pediatrics (Nursery Service), The Hospital for the Women of Maryland, with a Section on Neonatal Cardiology by Milton Markowitz, M.D., Assistant Professor of Pediatrics, The Johns Hopkins Medical School, and Pediatrician to The Johns Hopkins Hospital; Attending Pediatrician and Director of the Division of Pediatric Cardiology, The Sinai Hospital of Baltimore, Maryland. Price, $20.00. Pp. 878, illustrated. Philadelphia: Saunders, 1960.

Bedside Diagnosis, 5th ed. Charles Seward, M.D., F.R.C.P. (Edin.), Physician, Royal Devon and Exeter Hospital; Consulting Physician, Princess Elizabeth Orthopedic Hospital, West of England Eye Infirmary and The Ministry of Pensions. With a Foreword by Lord Cohen of Birkenhead, M.D., F.R.C.P., Professor of Medicine, University of Liverpool. Price, $6.00. Pp. 479. Baltimore: Williams & Wilkins, 1960.

Office Diagnosis. Paul Williamson, M.D., with illustrations by Ann Williamson. Price, $12.50. Pp. 470. Philadelphia: Saunders, 1960.



NEWS & PERSONALS

Meetings

The Basic Science Review Course sponsored by the Committee on Postgraduate Education of the Medical Society of the District of Columbia is now in progress. The sessions are held on Wednesday evenings, from 8:00 to 10:00. They began on October 5 and will continue through November 15. The last session, November 15, is on Tuesday instead of Wednesday. Registration fee is $5.00 for the series. House officers may attend free as guests of the Society. Members may call the Medical Society's offices for the subjects to be presented at the remaining meetings.

The Washington Hospital Center extends an invitation to all members of the Medical Society of D. C., the faculty and students of the Schools of Medicine, and other interested physicians to attend its special programs during the months of October and November.

Dr. Robert L. Goodale, Consulting Surgeon at the Massachusetts Ear and Eye Infirmary and Associate Professor of Laryngology, Harvard Medical School, will give a lecture, Saturday, October 22, at 10 a.m., on "The Paranasal Sinuses; Modern Concepts and Management." A luncheon meeting of the Section on Otolaryngology of the D. C. Medical Society will follow.

Dr. William T. Thompson, Chairman of the Department of Medicine, Medical College of Virginia, Richmond, will be the physician in residence for the period of October 26–28, during which time he will make teaching rounds, conduct teaching clinics, and give several special lectures.

Dr. Robert S. Sparkman, Clinical Professor of Surgery, Southwestern University School of Medicine, University of Texas, will be physician in residence for the period November 21–23, during which time he will conduct teaching rounds and teaching clinics. He will present a paper, November 22, 8:15 p.m., in the Center's auditorium on "Surgical Management of Gall Bladder Disease in the Aged."

Other prominent lecturers are scheduled to appear during the winter months. Physicians are hereby alerted to watch for announcements.

The Society for Industrial Microbiology will sponsor a **Conference on Antimicrobial Agents** at the Mayflower Hotel, Washington, October 26, 27 and 28. The Conference is designed to succeed annual antibiotics symposia conducted for the past 7 years by Dr. Henry Welch. The new sponsors have no connection with the management of the previous symposia.

Program sections for the Conference will include sessions on "The Mode of Antibiotic Action," "New Anti-fungal Compounds," "Anti-tumor and Anti-virus Compounds," "Clinical Response to Antibiotics," "Isolation and Production of New Antibiotics and Synthetic Production of Natural Antibiotics," "Laboratory Problems of Sensitivity and Resistance of Pathogenic Organisms," and "Chemotherapeutic Substances and Compounds."

The Society for Industrial Microbiology is an organization of scientists employed by colleges and universities, Government and public health agencies, and by firms in the food, textile, pharmaceutical, chemical, petroleum, and electronics industries.

Further information regarding the Conference may be obtained from Dr. Lloyd G. Herman, who is Chairman of Arrangements, 2000 P Street, N.W., Washington 6, D. C. Dr. Herman is President-elect of the Washington section of the Society.

At the meeting of the **Washington Psychiatric Society,** October 28, Dr. Edwin Weinstein, of Bethesda, Md., will speak on "Cultural Factors in Delusional Systems." The meeting will be held in the auditorium of the District Medical Society's building, beginning at 8:30 p.m. Refreshments will be served following the program.

The Medical Council of the Washington Metropolitan Area extends a cordial invitation to all physicians to attend a **Forum on General Problems in Medical Practice** which will be held on Saturday, October 29, beginning at 9:45 a.m., in the Presidential Ballroom of the Hotel Statler-Hilton. Subjects to be discussed at the Forum are:

"What Is Ethical Behavior?"
"Psychological Factors in Doctor-Patient Relations"
"The Relationship of Relative Value Studies to Fee Schedules"
"Doctors and Prepaid Medical Care"
"Medical Economic Realities of the 1960's"

Peoples Drug Stores, Inc. will be host to those attending the Forum at a luncheon in the Presidential Ballroom.

Dr. Henry P. Laughlin, President of the Council, will open the meeting. Ten outstanding authorities will be present to discuss the subjects listed above.

Registration for the **67th Annual Convention of the Association of Military Surgeons** will begin at 1 p.m. on October 30. The theme of the 3-day Convention is "The Military Role in Medical Progress." Rear Admiral Richard A. Kern, M.C., U.S.N.R., President of the Association, will open the meeting on October 31.

The William C. Porter Lecture will be presented on Tuesday afternoon, November 1, by Dr. Manfred S. Guttmacher, Chief Medical Officer of the Medical Service of the Supreme Bench of Baltimore. The Porter Lecture, which is sponsored by the Smith, Kline and French Laboratories to honor a pioneer in military psychiatry, was established in 1958.

All interested physicians are invited to attend the scientific sessions and to view the technical and scientific exhibits. There is no registration fee. Reserve officers attending the meeting may register for credit points.

A Symposium of Current Topics in Cardiovascular Medicine has been scheduled for November 3, 1960, at the Mayflower Hotel in Washington, from 9:00 a.m. to 5:00 p.m. This Symposium is sponsored by the District of Columbia General Hospital in collaboration with the D. C. Academy of General Practice, the D. C. Branch I of the American Medical Women's Association, and the Maryland Academy of General Practice. All practicing physicians, residents and interns of the Washington Metropolitan Area are cordially invited to attend. There will be no registration fee.

Dr. John D. Schultz, Medical Director, D. C. General Hospital, will chairman the morning session, beginning at 9 a.m. The first paper, "Pharmacology and Physiology of Amine Oxidase Inhibitors," by Dr. Alfred Pletscher, of Basle, Switzerland, will be discussed by Dr. Theodore Koppanyi, Washington.

Dr. Henry I. Russek, of Staten Island, N. Y., will moderate a Panel Discussion on Clinical Application of Amine Oxidase Inhibitors in Angina Pectoris and Hypertension. Panelists will be Dr. Frank A. Finnerty, Washington; Dr. Marvin Moser, New York; Dr. Robert Oblath, Los Angeles; and Dr. Andrew G. Prandoni, Washington.

Dr. Howard E. Ticktin will be moderator for the second panel discussion during the morning on Use of Enzymes in the Diagnosis of Heart Disease. Panelists will be Dr. Warren Wacker, Boston, and Dr. Felix Wroblewski, New York.

Luncheon will be served in the East Room at 12:15 p.m.

The afternoon session will be chairmanned by Dr. J. B. Johnson, Professor of Medicine at Howard University. Beginning at 2 p.m., two papers will be presented: "Hereditary Aspects of Cardiovascular Disease," Dr. Victor McKusick, Baltimore; "Taking Precordial EKG's during Exercise," Dr. John LaDue, New York.

The program will close with a Panel Discussion on Treatment of Cardiac Arrhythmias, with Dr. John M. Evans, Washington, as moderator. Panelists will be Dr. W. Proctor Harvey, Washington; Dr. Robert Green, Cincinnati; Dr. William Likoff, Philadelphia; and Dr. Robert Moe, Nutley, N. J.

Medical Education Continuum and the Community Hospital is the topic selected by **Sibley Memorial Hospital** for its second Conference on Medical Education, November 16, at the Hospital. This Conference is designed to focus attention on the problems facing non-university hospitals in developing effective programs for continuing education after medical school.

The topics and the speakers who will discuss them are:

"The Role of the Community Hospital in Postgraduate Medical Education," Dr. Harold Jeghers, Professor and Director of Medicine, Seton Hall College of Medicine

"Basic Sciences in the Community Hospital," Dr. Robert P. Grant, Assistant Chief, Grants and Training Branch, and Chief of Training Grants and Fellowship Section, N.I.H.

"Technics of Ward Rounds and Conferences," Dr. George E. Miller, Director of Research in Medical Education, University of Illinois, College of Medicine.

Following luncheon at the Hospital, there will be a panel discussion by the guest speakers in which Dr. Hugh H. Hussey, Dean of Georgetown University School of Medicine, and Dr. John Parks, Dean of George Washington University School of Medicine, will participate.

The Southeastern Region of the College of American Pathologists and the Virginia Society of Pathologists will hold a joint meeting at the John Marshall Hotel in Richmond, Virginia, November 25 and 26, to consider diseases of the kidney. There will be outstanding speakers and a slide seminar, the latter to be conducted by Drs. Paul Kimmelstiel and Solomon Papper. The dinner speaker will be Dr. Frank C. Coleman, President of the College of American Pathologists.

The slide sets for the Seminar on Kidney Disease may be purchased at a cost of $15 per set by writing to Dr. G. T. Mann, Professor of Forensic Pathology, P.O. Box 41, Medical College of Virginia, Richmond 19, Virginia.

The Second National Conference on the Medical Aspects of Sports will be sponsored by the American Medical Association and held immediately preceding its Clinical Session at the Hotel Statler-Hilton in Washington, November 27, 1960. The Conference will cover a wide range of subjects relating to training and conditioning, prevention of injuries, recognition referral and treatment of injuries, psychology of sports participation, etc. An announcement of the Conference may be secured by addressing The Secretary, Committee on the Medical Aspects of Sports, AMA, 535 North Dearborn Street, Chicago 10, Ill.

The Washington, D. C. Area Council on Alcoholism, Inc., is sponsoring a one-day workshop on "Unmet Needs in the Washington Area in Alcoholism" on Friday, December 2, in the North Building of the Department of Health, Education, and Welfare. Professional people who deal with the problem of alcoholism are invited to attend. There will be a workshop for physicians. There is no registration fee. Further information may be secured from the Council, 1400 Que Street, N.W., Washington 9, D. C., telephone Hobart 2-4421.

General News

The Executive Board of the Medical Society of the District of Columbia met in regular session on August 8, 1960. Dr. Victor R. Alfaro, President of the Society, acted as chairman in the absence of Dr. William Ross Morris.

A motion was made and carried that the President and the Secretary of the Society be authorized to sign an agreement with the Department of Defense extending the Society's participation in the Dependents' Medical Care Program for another year, beginning August 1, 1960.

Dr. James E. Chapman, Chairman of the Society's Committee on Emergency Medical Service of the Washington Metropolitan Area, was requested to represent the Society at a Conference on Medical Civil Defense and Disaster Preparedness, sponsored by the American Medical Association, to be held in Chicago, November 4–6.

Approval was given to the appointment of Dr.

William E. Beaven to the Medical Bureau Committee.

Dr. Hugh Clark was appointed by the President to serve as the Society's representative on a special Study Group on Accident Prevention. The appointment was made at the request of Dr. Helen M. Wallace, Chief of Professional Training, Division of Health Services, Department of Health, Education and Welfare.

The Board approved a study to be conducted by the National Heart Institute and the National Office of Vital Statistics on deaths from cardiovascular-renal diseases in the District of Columbia.

The National Foundation is offering **postdoctoral fellowships** to candidates for training in research, orthopedics, preventive medicine, arthritis and related diseases, and rehabilitation. The closing date for submitting applications to be reviewed in February is November 1. Details of specific programs may be secured by addressing the Foundation at 800 Second Avenue, New York 17, New York.

Applications for charter membership in the American Society of Diagnostic Radiology are now being received. Membership is open to general practitioners and to internists who do or may desire to do some types of diagnostic radiology in their offices. Further information may be secured from Dr. Louis Shattuck Baer, 411 Primrose Road, Burlingame, California.

A 15-minute TV program, **"This Week in Medicine,"** will go on the air over a Nation-wide network, beginning October 30. This series will be sponsored by Ciba Pharmaceutical Products, Inc. and produced by the editorial staff and medical consultants of *Medical News*, a biweekly newspaper also sponsored by Ciba.

The program will complement *Medical News* in giving the highlights of major scientific meetings and calling attention of physicians to important editorial content of scientific journals. Each program will include a world-wide summary of medical news and a filmed feature on some aspect of research, clinical medicine or surgery.

Medical societies will be furnished information on stations and broadcast time. Advance information on scheduling of film features of interest to groups in specialized fields of medicine will be furnished.

The Doctors Symphony Orchestra, now entering its seventh year of existence, announces that rehearsals are being held every Thursday at 8:15 p.m. in the Perpetual Building in Bethesda. Doctors, dentists, pharmacists, nurses, members of allied professions, their families and other musicians are invited to join the Orchestra. They may do so by attending a rehearsal or by contacting Dr. James A. Gannon, Jr., Conductor (telephone Woodley 6-9000).

Diabetes Week will be observed this year, November 13–19. The new Chairman of the Committee on Public Education and Detection of the American Diabetes Association is Dr. Joseph H. Crampton, of Seattle, Washington. **Dr. Louis K. Alpert,** of Washington, who has filled this post for the past 6 years, will continue to serve in the capacity of Vice Chairman.

The American Association of Blood Banks and the American Red Cross have announced a national reciprocal agreement for interchange of blood. The new plan will make it easier to supply blood for patients hospitalized away from home and also will speed the relief of temporary blood shortages wherever they may occur. Under the pact, affiliates of the Blood Banks and Red Cross Regional Centers will act for each other in providing blood within either program. The agreement will become effective, January 1, 1961.

The new Northern Virginia Doctors Hospital in Arlington was dedicated in appropriate ceremonies, August 24, and with an address by Dr. Thomas Haggerty, President of the Hospital Corporation. The new structure, built at a cost of $500,000, at 601 South Carlyn Spring Road, contains 72 beds. This is the first wing of the hospital, which will have a 350-bed capacity when completed and will cost a total of $6 million. It will be the largest hospital in Northern Virginia. Patients were received on August 29.

Dr. John B. Youmans, former Dean and Professor of Medicine at Vanderbilt University School of Medicine, has been named **Director of the Division of Scientific Activities of the American Medical Association,** succeeding the late Dr. Edward L. Turner. This Division was created in 1959 to coördinate all scientific activities of the Association. More recently

Dr. Youmans has been Technical Director of Research for the U. S. Army Medical Research and Development Command, Office of the Surgeon General, in Washington. He assumes full-time duties at the AMA this month.

Dr. Jack Masur, Director of the Clinical Center, National Institutes of Health, became **President-elect of the American Hospital Association,** August 30, and the first Federal hospital administrator to be named to the post. He was elected by the House of Delegates of the Association at its annual convention in San Francisco.

Dr. James E. Birren, Chief of the Section on Aging of the National Institute of Mental Health, PHS, has been elected **President of the Gerontological Society, Inc.,** which met in San Francisco early in August in conjunction with the Fifth Annual Congress of Gerontology. The Gerontological Society was founded in 1949 and is made up of scientists who are studying the aging problem from the angles of various disciplines such as physics, chemistry and sociology. Dr. Birren is spending a year in research in Cambridge, England and in other European countries on the problems of the aging.

Dr. Walter C. Hess has been appointed **Associate Dean of Georgetown University Schools of Medicine and Dentistry.** He was formerly Professor of Biochemistry and Assistant Dean for Research at the Medical Center.

Dr. Samuel C. Kaim has been appointed **Chief of Psychiatric Research for the Veterans Administration.** He comes to the VA Central Office from Coral Gables, Florida, where he was Chief of Inpatient Psychiatry and Neurology at the VA Hospital. He was also Clinical Assistant Professor of Neurology at the University of Miami. In his new post he will coördinate the VA's large-scale coöperative research on newer drugs in the treatment of mental illness, as well as the many individual studies by VA personnel in the psychiatric field.

Mr. Joseph Hendrix Himes, founder and first president of Group Hospitalization, Inc., died, September 9, 1960, at George Washington University Hospital. The hospital insurance plan which he was instrumental in establishing now serves 850,000 members in the Washington Metropolitan Area.

Group Hospitalization, Inc. was launched from a public meeting called by Mr. Himes, March 10, 1933, when he was President of Columbia Hospital. The meeting was attended by leaders of Government, hospitals, the medical profession, and civic organizations. He retired as President of the organization in May 1958 for reasons of health and assumed chairmanship of the Board. In 1956 his accomplishments in the field of hospital care prepayment were recognized by the John Benjamin Nichols Award from the District Medical Society.

Personals

Lt. Colonel James E. Chapman, Chairman of the D. C. Medical Society's Committee on Emergency Medical Service of the Washington Metropolitan Area, was elevated to the post of Commanding Officer of the 115th Evacuation Hospital of the District of Columbia National Guard. The announce-

LT. COLONEL JAMES E. CHAPMAN
Commanding Officer, 115th Evacuation Hospital

ment came from the field headquarters of Major General W. H. Abendroth, Commanding General of the District National Guard, at the Indiantown Gap Military Reservation, where the Guardsmen underwent 15 days of fulltime field training during the summer.

Dr. John Parks, Dean of the George Washington University School of Medicine, was installed, September 10, as President of the American Association of Obstetricians and Gynecologists during the Association's meeting in Hot Springs, Va.

Dr. Hugh H. Hussey, Dean of Georgetown University School of Medicine and a member of the Board of Trustees of the American Medical Association, was selected by the Board of Trustees to represent the AMA in the Division of Medical Sciences of the National Academy of the National Research Council. He succeeds the late Dr. Edward L. Turner. The selection was made at the Annual Meeting of the AMA at Miami Beach, Florida, in June.

Dr. Walter H. Gerwig, Jr., who is Chief of Surgery at the Veterans Hospital in Clarksburg, West Virginia, has been appointed to the faculty of the new West Virginia University Medical Center in Morgantown as Clinical Associate Professor of Surgery. He will continue to serve in his present hospital position.

Before moving to Clarksburg, Dr. Gerwig was on the staff of George Washington University School of Medicine as Associate Professor of Surgery. He was also a Consulting Editor to the MEDICAL ANNALS OF THE DISTRICT OF COLUMBIA. For some 15 years he has served as consultant surgeon to Walter Reed Army General Hospital and continues to do so, visiting Washington about once a month. He is an Associate member of the D. C. Medical Society.

The American Medical Education Foundation will give an Award of Merit for 1959 to **Dr. Oscar B. Hunter, Jr.,** for "outstanding contributions to the preservation and continuance of high standards of medical education." This award will be given to 22 medical societies and other medical and allied organizations and to 16 individual physicians.

A new award, the "Citation," is being given to "faithful, generous contributors over the years." Among those who will receive "Citations" for 1959 are **Dr. Hugh H. Hussey and Dr. Thomas M. Peery,** of Washington, D. C.

Major General Oliver K. Neiss, Surgeon General of the Air Force, was awarded a Certificate of Fellowship in the American College of Chest Physicians at the College's Convocation, June 11, during its Annual Meeting in Miami Beach, Fla.

Dr. Joseph A. Bailey, on the staff of the Washington Clinic, has been appointed team physician of the Dallas Cowboys of the National Football League. Dr. Bailey played football while a student at Georgetown University. He will maintain his Washington practice, using air service for the new post he has accepted.

Dr. Leon Salzman has been elected to serve a 3-year term on the Board of Trustees of the Academy of Psychoanalysis.

Drs. Robert L. Simpson, Theodore R. Pinckney, Maesimund B. Panos, and Vincent Hernandez responded to an appeal from the D. C. Medical Society for assistance to the Summer Outings Committee of Family and Child Services. These physicians volunteered their services to examine some of the 1,200 underprivileged children who were given the opportunity to attend the summer camps Goodwill and Pleasant. In addition to these members of the Society, residents and interns from Children's, Georgetown, and Freedmen's Hospitals donated their services.

Several members of the D. C. Medical Society have been appointed department chairmen and section chiefs of the new Fairfax Hospital, which will receive its first patients in January, 1961. Departmental chairmen include **Dr. Peter Soyster,** McLean, obstetrics and gynecology; **Dr. C. Barrie Cook,** Fairfax, pathology; **Dr. Robert B. Neu,** Arlington, psychiatry, and **Dr. Gerard J. Inguagiato,** Falls Church, surgery. Among the surgical section chiefs are **Dr. Robert L. Norment,** Arlington, ophthalmology, and **Dr. Henry T. Kulesher,** Falls Church, otolaryngology.

These physicians are Associate members of the Medical Society of D. C. with the exception of two, Dr. Cook, who is Active, and Dr. Kulesher, who is an Affiliate member.

Obituaries

NORMAN T. KIRK, M.D., F.A.C.P., F.A.C.S.

(1888-1960)

Major General Norman T. Kirk, Surgeon General of the Army from 1943 to 1947, died August 13, 1960, at Walter Reed Army Hospital. He was an Honorary member of the District Medical Society.

General Kirk was born, January 3, 1888, at Rising Sun, Maryland. After receiving his medical degree from the University of Maryland in 1910, he served as resident physician at the University Hospital, Baltimore, and as clinical assistant at the U. S. Soldiers' Home Hospital in Washington. He was commissioned First Lieutenant in the Army Medical Reserve Corps in 1912 and appointed to the Regular Army Medical Corps the next year.

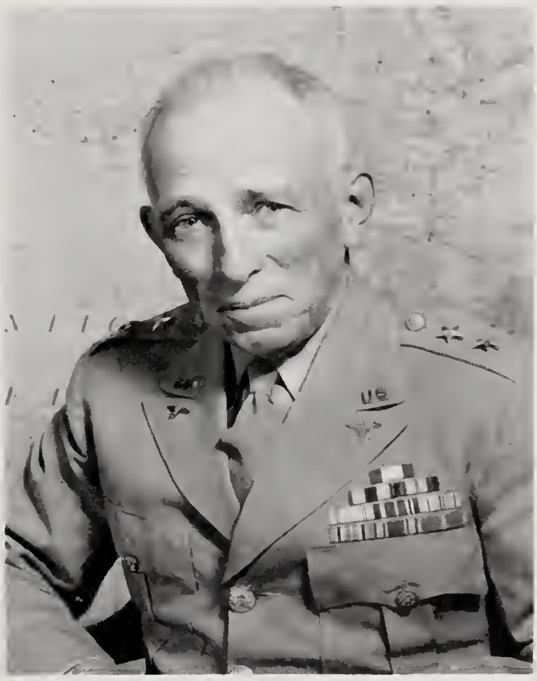
General Kirk was assigned to Walter Reed General Hospital on three occasions. At Walter Reed, in 1919, he transferred his practice from general surgery to bone and joint surgery. He was credited with treating at least a third of the major amputations incurred in World War I. In 1930 he returned as Chief of the Hospital's Orthopedic Section, and, in 1941, was named Chief of its Surgical Service. In the periods between he served at many other military installations.

In 1942 he became Commanding Officer of Percy Jones General Hospital in Battle Creek, Michigan. Under his supervision, the Battle Creek Sanatorium was converted into a general hospital and a specialized center for the treatment of amputations, neurosurgery, radiation therapy, and neurology.

General Kirk was named Surgeon General of the Army on June 1, 1943, and held the post until he retired in June, 1947. Under his guidance the Army's ground and air forces in World War II achieved a record of recovery from wounds and freedom from disease never before accomplished in history. The death rate from disease dropped to 60 per 10,000 individuals as compared with a World War I rate of 165 per 10,000.

His book, "Amputations: Operative Technique," published in 1924, is still a standard textbook. He was also the author of numerous articles on clinical and operative surgery.

During his long career in military medicine, he held membership in many scientific organizations and served on numerous commissions and planning committees. He was a diplomate of the American Board of Surgery, a Fellow and Governor of the American College of Surgeons, a Fellow of the American College of Physicians, and an Honorary Fellow of the Southern Psychiatric Association. He was a member of the American Medical Association, American Surgical Association, American Orthopedic Association, American Academy of Orthopedic Surgeons, Association of Military Surgeons, and many others.



MAJOR GENERAL NORMAN T. KIRK

He was elected to Honorary membership in the D. C. Medical Society in 1944. He was an honorary life member of the Washington Orthopedic Society and a life member of the New York Medical Society. He was a Mason and a member of Alpha Omega Alpha and Nu Sigma Nu fraternities.

He received an honorary Doctor of Laws degree from Columbia University and honorary Doctor of Science degrees from the University of Maryland

DECEASED MEMBERS OF THE MEDICAL SOCIETY
1959–1960

Barry, Edmund	(Life)	April 10, 1960
Bird, Jacob W.	(Associate)	October 25, 1959
Bogan, Joseph B.	(Life)	August 28, 1960
Burke, John W.	(Life)	October 5, 1959
Butz, Abraham D.	(Life)	July 6, 1960
Claudy, William D.	(Active)	October 6, 1959
Cooper, Linn F.	(Active)	November 13, 1959
Creswell, George W.	(Active)	November 1, 1959
French, Bernard S.	(Active)	February 8, 1960
Gilligan, John H.	(Associate)	April 29, 1960
Kenner, Albert W.	(Honorary)	November 12, 1959
Kirk, Norman T.	(Honorary)	August 13, 1960
Marland, Jackson T.	(Active)	July 29, 1960
Murphy, Christopher J., Jr.	(Active)	March 23, 1960
Murphy, Timothy F.	(Associate)	August 29, 1960
McIntire, Ross T.	(Honorary)	December 8, 1959
McNeill, Willard P.	(Associate)	December 28, 1959
Raines, George N.	(Active)	September 16, 1959
Rowntree, Leonard G.	(Honorary)	June 2, 1959
Sims, William B.	(Active)	July 29, 1960
Sobel, Agatha	(Active)	July 20, 1960

and Davidson College. He was decorated and cited by the United States, Great Britain, France, and Italy.

After his retirement from active duty in 1947, General Kirk and his wife, Mrs. Anne Duryea Kirk, divided their time between their homes in Melbourne Beach, Fla., and Montauk, L. I., N. Y.

Surviving him, in addition to his wife, are two daughters, Mrs. Marvin R. Kimbrell, Jr., of Pensacola, Fla., and Mrs. Harry L. Willard, of Chappaqua, N. Y. He also leaves a sister, Mrs. Norman C. Pyle, of Drexel Hill, Pa.

JOSEPH BORROWS BOGAN, M.D.
(1878-1960)

Dr. Joseph Borrows Bogan, dean of Washington anesthesiologists, died suddenly, August 28, 1960, while attending the wedding of his granddaughter in El Reno, Oklahoma. He was a Life member of the Medical Society of the District of Columbia.

Dr. Bogan was the son of a physician, Dr. Martin Van Buren Bogan, and Mrs. Charlotte Augusta Gray Bogan. He was born in Washington, D. C., January 17, 1878, and attended its public schools. He was a graduate of old Central High School, Class of 1897, and a year ago received the Alumni Association's Award at its Golden Anniversary meeting.

He graduated and received a teacher's certificate from Washington, D. C. Normal School in 1899 and taught in the District schools while preparing for a career in medicine. He received his medical degree from George Washington University in 1907.

Dr. Bogan interned at Garfield Memorial Hospital and continued his affiliation with this institution until it merged into the Washington Hospital Center. He was staff anesthetist from 1909 to 1916, visiting anesthetist, 1916 to 1946, and consultant in anesthesiology after 1946. He also served as consultant in his field to Children's Hospital and Mt. Alto Veterans Administration Hospital, and was on the courtesy staff of other Washington hospitals. From 1927 to 1932 he was Clinical Professor of Anesthesia at George Washington University.

Dr. Bogan was elected to Active membership in the Medical Society of the District of Columbia in 1911 and became a Life member in 1952. He was Chairman of its Section on Anesthesiology in 1947–48. He was a Fellow of the American College of Anesthesiologists and the International College of Anesthesiologists, and a diplomate of the American Board of Anesthesiology. He was a member of the George Washington University Medical Society and its Vice President in 1938; member and Past President of the Southern Association of Anesthesiologists, the Hippocrates-Galen Medical Society, and the Potomac Society of Anesthesiologists. Memberships also included the American Medical Association, the Southern Medical Association, the Washington Academy of Surgery, the American Society of Anesthesiologists, and the Association of Anesthesiologists of the United States and Canada. He contributed many articles in his field to the literature. He was a member and elder of the Fourth Presbyterian Church.

Surviving him are his wife, Mrs. Lillian Condon Bogan, of the home address, 1320 Ingraham Street, N. W.; a son, Joseph B. Bogan, Jr., of El Reno, Okla.; a daughter, Mrs. Thomas Gwynn, Jr., of Clinton, Md.; and two sisters, Mrs. John Merwin, of Erie, Pa., and Mrs. Walton Fearing, of Norfolk, Va.

Meningismus in Appendicitis—Schanno, McDonald and Peacock

(*Continued from page 537*)

SUMMARY

Acute appendicitis of infancy may present with signs of meningismus in a significant number of cases. Meningismus itself is part of the typical clinical picture of infants in numerous inflammatory conditions of the chest and abdomen. Reduction of the mortality from appendicitis in the early years of life can be brought about by increased awareness of its existence and of its clinical picture. Two cases of ruptured appendicitis with meningismus have been presented.

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Bacteriuria in Female Diabetics—Grigsby et al

(*Continued from page 541*)

Although both groups of nondiabetics with the highest incidence of bacteriuria fell into categories more prone to bacteriuria, the pregnant and the elderly female, there did not appear to be evidence of decreased renal function associated with the bacteriuria.

The high incidence of elevation of the NPN among the diabetics with bacteriuria would seem to indicate the need for control of urinary-tract infections among this group of patients.

Additional studies are contemplated on these diabetic patients to determine if there has been a change in their status since the conclusion of this study in 1956.

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Group Processes and Decision-making—Goshen

(*Continued from page 545*)

solution, a crash program is in order to make a concerted attack on these problems. Recommend that $100,000 be appropriated for a 5-year study."

SUMMARY

The degree of maturity of an individual can be measured by the quality of decisions he makes. Similarly, the effectiveness of a group will be measured by the quality of its decision-making processes. An increasing share of modern-day decisions are being made by groups instead of by individuals. The learning process required by a group in order to make good decisions is not unlike the problem of an individual's growing up. Sooner or later, nearly all professional people are required to participate in group processes, particularly as committee members. Appreciation of the pitfalls and potentialities of this medium of action can help in making the most effective use of it.

Retrosternal Dislocation of Clavicle—Mitchell and Cobey

(*Continued from page 549*)

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Report on Live Poliovirus Vaccine

(*Continued from page 574*)

has been employed largely in mass administrations where most of the susceptibles were simultaneously given the vaccine, thus permitting little opportunity for serial human transmission, or it has been administered during a season of the year when wild strains have usually shown limited capacity for spread. This experience should provide the basis for developing usable practices for the U.S.A.

Respectfully submitted,
COMMITTEE ON LIVE POLIOVIRUS VACCINE
RODERICK MURRAY, M.D., *Chairman*
DAVID BODIAN, M.D.
WILLIAM McD. HAMMON, M.D.
ALEXANDER D. LANGMUIR, M.D.
JOSEPH L. MELNICK, PH.D.
JOHN R. PAUL, M.D.

Report of Chairman of Executive Board

(*Continued from page 578*)

as a Society officer have not only been pleasant but instructive. Needless to say, I will always maintain a keen interest in Society affairs and give such assistance as I can to the furtherance of its objectives.

Respectfully submitted,
WILLIAM ROSS MORRIS, M.D.
Chairman, Executive Board

Membership

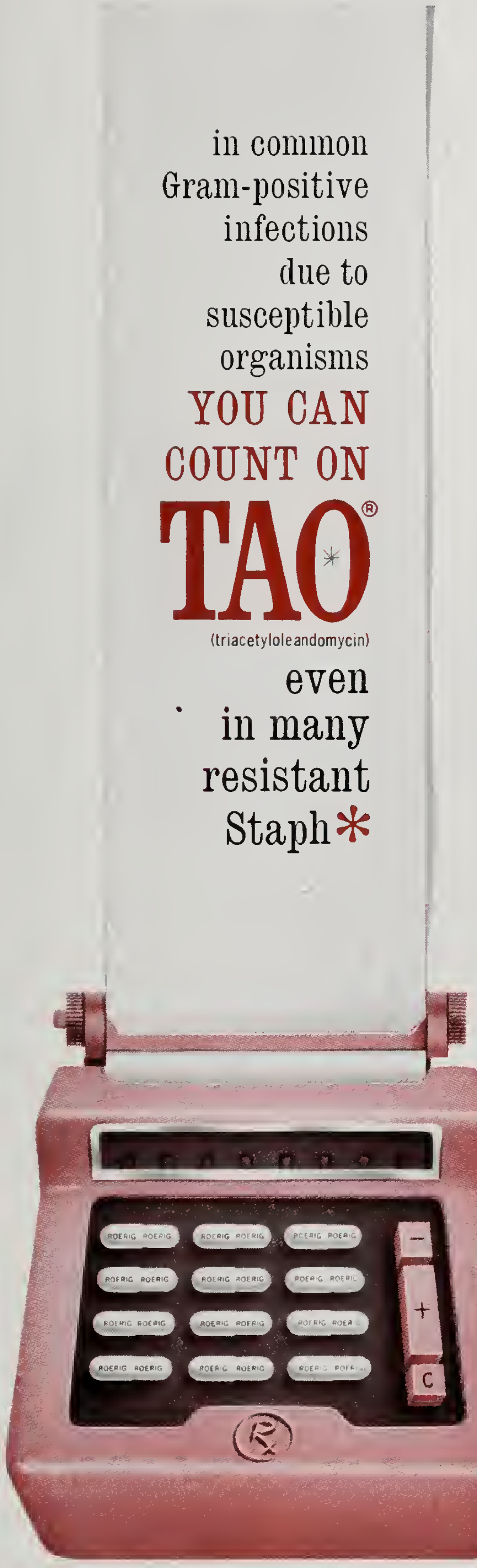
(*Continued from page 588*)

For Associate Membership

Solomon E. Barr, George Washington University—1954
Gene U. Cohen, Johns Hopkins University—1950

For Resident-Intern Membership

Katherine V. Greene, George Washington University—1958
Azeez V. Khayat, University College of Dublin (Ireland)—1958



1,928 published cases in the two years since TAO was released for general use show:

94.3% effectiveness in respiratory infections (617 cases including tonsillitis, staphylococcal and streptococcal pharyngitis, bronchitis, infectious asthma, broncho-pneumonia, lobar pneumonia, bronchiectasis, lung abscess, otitis.) **You can count on TAO.**

92% effectiveness in skin and soft tissue infections (900 cases including pyoderma, impetigo, acne, infected skin disorders, wounds, incisions and burns, furunculosis, abscess, cellulitis, chronic ulcer, adenitis.) **You can count on TAO.**

87.1% effectiveness in genitourinary infections (349 cases including urethritis, cystitis, pyelitis, pyelonephritis, orchitis, pelvic inflammation, acute gonococcal urethritis, lymphogranuloma venereum.) **You can count on TAO.**

75.8% effectiveness in diverse infections (62 cases including fever of undetermined origin, peritoneal abscess, osteitis, periarthritis, septic arthritis, staphylococcal enterocolitis, gastroenteritis, carriers of staphylococci.) **You can count on TAO.**

95.6% of 1,928 cases free of side effects—in the remaining 4.4%, reactions were chiefly mild gastrointestinal disturbances which seldom necessitated discontinuance of therapy.

*In 884 of 1,928 cases the causative organisms were mostly staphylococci. The majority of clinical isolates were found to be resistant to at least one of the commonly used antibiotics and many patients had failed to respond to previous therapy with one or more antibiotics. **TAO proved 93.4% effective in these 884 cases.**

Complete bibliography available on request.

DOSAGE: varies according to severity of infection. Usual adult dose—250 to 500 mg. q.i.d. Usual pediatric dose: 3-5 mg./lb. body weight every 6 hours.

NOTE: In some children, when TAO was administered at considerably higher than therapeutic levels for extended periods, transient-jaundice and other indications of liver dysfunction have been noted. A rapid and complete return to normal occurred when TAO was withdrawn.

SUPPLY: TAO CAPSULES—250 mg. and 125 mg., bottles of 60. TAO ORAL SUSPENSION—125 mg. per 5 cc. when reconstituted, palatable cherry flavor, 60 cc. bottles. TAO PEDIATRIC DROPS—100 mg. per cc. when reconstituted, flavorful; special calibrated dropper, 10 cc. bottles. INTRAMUSCULAR or INTRAVENOUS—10 cc. vials, as oleandomycin phosphate.

OTHER TAO FORMULATIONS ALSO AVAILABLE: TAO®-AC (Tao, analgesic, antihistaminic compound) capsules, bottles of 36. TAOMID® (Tao with Triple Sulfas)—tablets, bottles of 60. Oral Suspension—60 cc. bottles.

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BOOK REVIEWS

Medical Department, United States Army: Surgery in World War II. Neurosurgery, Volume II. Colonel John Boyd Coates, Jr., M. C., Editor-in-Chief; R. Glen Spurling, M.D., and Barnes Woodhall, M.D., Editors for Neurosurgery; Elizabeth M. McFetridge, M.A., Associate Editor Prepared and published under the direction of Major General S. B. Hays, The Surgeon General, United States Army. Price, $7.00. Pp. 705. Washington 25, D. C.: Superintendent of Documents, U. S. Government Printing Office, 1959.

Under the direction of the Surgeon General, U. S. Army, and Colonel John B. Coates, Jr., M.C., Editor-in-Chief, several volumes comprising the official history of the Medical Department of the U. S. Army in World War II have been published. "Neurosurgery," volume I, published in 1958, dealt with the administrative aspects of neurosurgery and with the management of head injuries in World War II.

"Neurosurgery," Volume II, the final volume in the Neurosurgical Series, is divided into 2 parts, dealing with injuries of the spinal cord and peripheral nerve injuries. The section on spinal cord injuries contains a brief historical note which depicts the hopeless attitude adopted in World War I toward the paraplegic patient. It further includes chapters on the treatment of the paraplegic patient in the Zone of Interior in World War II, with a discussion of the details of the paraplegic centers. Other chapters deal with the management of the patients in the Mediterranean Theatre of Operations and the European Theatre of Operations, the management of acute compound battle-incurred injuries of the spinal cord, urological aspects of paraplegia, and the management of the numerous complications of paraplegic patients. There is a brief chapter on ruptured intervertebral discs, dealing primarily with Army policies on this subject.

The second section of this volume is prefaced by a brief historical note regarding the treatment of peripheral nerve injuries in World War I. In subsequent chapters the treatment of these injuries in the various theatres of operations in World War II is described. In addition, there are excellent chapters on the standard methods of examination in peripheral nerve injuries, the anatomic approaches to injured peripheral nerves, technics of nerve repair, combined bone and nerve injuries, peripheral nerve-vascular injuries, causalgia, nerve grafts, the neuropathology of nerve injury, physical therapy in the management of peripheral nerve lesions, and a final chapter on the orthopedic technics in use in irreparable nerve injuries.

This volume documents the great advance in these areas in chapters written by some of the surgeons who were responsible for those advances. It is the most definitive treatise on this subject. Certainly this volume will find its way into the private libraries of all neurosurgeons, and should prove extremely useful to all surgeons who see spinal cord and/or peripheral nerve injuries. Medical students will find it to be an excellent reference volume. The print is easily legible and there are numerous excellent illustrations.

Hugo V. Rizzoli, M.D.

Christopher's Textbook of Surgery, 7th ed. Edited by Loyal Davis, M.D. Price, $17.00. Pp. 1551, with 1597 illustrations on 810 figures. Philadelphia: Saunders, 1960.

The book is a well presented, comprehensive textbook, designed to meet the needs of students, house officers, and young surgeons. Its many contributors have done a fine job of filling the voids left in the medical school curriculum. In most of the chapters, the basic science aspects of the art of surgery are emphasized. The basic surgical specialties are dealt with adequately without burdensome detail and volume.

There are 35 chapters. The author of each chapter is listed and his biography is briefly presented. There is a completely new chapter on "Surgical Judgment" which is of a very excellent quality. The illustrations, pictures and charts are easily understandable and clear. This book has evolved from the original text, written in 1936, through 6 additional editions.

The chapter written by Paul R. Hawley on "The Qualifications of a Surgeon" is highly recommended to the student or practitioner of surgery, for in it is clearly stated the great features of character, the elements of personality, and the tenets of ethical approaches to the field of surgery.

The chapter entitled "The Mouth, Tongue, Jaws and Salivary Glands," written by J. Barrett Brown of St. Louis, deals adequately with non-neoplastic conditions of this anatomic area. It is deficient in its discussion of the malignancies that occur in and around the oral cavity. In this field, very little distinction is made between the various forms and anatomic sites of malignancy in regard to the natural behavior of primary malignant tumors. Further, the chapter is deficient as regards the differing methods of therapy for malignant disease in the oral cavity.

The chapter which deals with hernia is very comprehensive and, in my opinion, covers completely the important anatomic, diagnostic, and treatment factors

(Continued on page 46)

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Book Reviews

(Continued from page 44)

as they relate to all of the various kinds of hernias. This chapter has real value even for the experienced practitioner of surgery.

In the chapter entitled "The Abdominal Wall and Peritoneum," the authors have converted a broad and difficult subject into a brief chapter of 45 pages which is easily readable and is accompanied by excellent diagrams.

The chapter on "The Heart and Pericardium" is a comprehensive and up-to-date treatise on this subject. This is significant in view of the daily rapid strides which are being made in advancing our knowledge on this surgical frontier.

As a whole, the book is simply and lucidly written. Noteworthy among the chapters that are outstanding in this regard are the chapters on "The Breast," "Diseases and Tumors of the Lungs and Bronchi," "The Adrenal Glands," and the chapter on "Physical Medicine and Rehabilitation."

Each chapter is followed by a bibliography which provides useful information to the reader who wishes to pursue further the subjects discussed. Each bibliography is up-to-date and complete.

The book is handsomely bound in an attractive cover which is tough and resistant to dirt, wear, and tear. The book is highly recommended to all who are interested in the field of surgery.

JACK E. WHITE, M.D.

Ciba Foundation Colloquia on Ageing. Volume 5. The Lifespan of Animals. G. E. W. WOLSTENHOLME, O.B.E., M.A., M.B., M.R.C.P., AND MAEVE O'CONNOR, B.A., Editors for the Ciba Foundation. Price, $9.50. Pp. 324, with 58 illustrations and Cumulative Index to Volumes 1–5. Boston: Little, 1959.

This book consists of about 14 papers by different authors, group discussions of the papers, and a concluding group discussion of all the papers. The papers are concerned with specific problems of ageing in animals. The titles of the papers frequently imply more than is covered in the text of the paper. The group discussions are frequently more interesting than the papers themselves. Many interesting questions are raised. This book may be useful to those especially interested in ageing, but it does not present an organized or systematic approach to the lifespan of animals. If this book were entitled, "Some Aspects of the Lifespan of Some Animals," it would probably describe its content better.

ROBERT L. GUILLAUDEU, M.D.

(Continued on page 48)

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in neuroses & psychiatric disorders[25,2

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Book Reviews

(*Continued from page 46*)

Ciba Foundation Study Group No. 4. Virus Virulence and Pathogenicity. In honour of Prof. J. Mulder. G. E. W. Wolstenholme, O.B.E., M.A., M.B., M.R.C.P., and Cecilia M. O'Connor, B.Sc., Editors for the Ciba Foundation. Pp. 114, with 13 illustrations. Boston: Little, 1960.

This little volume is the record of a conference on viral virulence, in especial reference to the example of influenza, although other problems such as poliomyelitis, ECHO, and the various respiratory viral agents are touched upon as they serve to elucidate or emend the discussion. The major presentations are by such leaders in the field of virology as C. H. Stuart-Harris, C. H. Andrewes, J. Mulder and others, with lively and provocative discussions chaired by Sir MacFarlane Burnet.

The widely variant problems of intrinsic viral virulence as related to host susceptibility form the common denominator of the discussion. The problems of measurement of virulence, modification of viral virulence by the host, alteration of the host due to viral characteristics are examined. Of striking note are the discussions relating to the limitations of laboratory study and artificial experiment in the study of infectious disease in man. Review of human experience in both pandemic and interpandemic times is called upon to evaluate conclusions based upon controlled experiment. Finally, questions of the use of attenuated virus as vaccine are considered and debated.

Although a small volume, this publication presents the wide variety of opinion which has developed from modern virology. The presentations call upon a mass of experimental and clinical data in support of the opinions expressed. This presupposes a certain degree of familiarity with the background of virologic study of the past 15 years. However, even lacking such a familiarity, the book is an enlightening and thought-provoking document.

For its stimulation and carefully considered opinions, which will direct development in the field of virologic infections in the future, this volume should be read by everyone concerned with infectious disease, either clinically or in the laboratory. The effort will reward the reader with renewed understanding of the pathogenesis of infection.

Daniel Leigh Weiss, M.D.

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MEDICAL ANNALS
of the District of Columbia

November 1960 VOLUME XXIX • NUMBER 11

VETERANS ADMINISTRATION (MT. ALTO) HOSPITAL NUMBER

This is the eighth of a series of special numbers of the Medical Annals, the scientific material for which is supplied by medical institutions and scientific organizations in the Washington Metropolitan Area. For the Veterans Administration (Mt. Alto) Hospital Number, the Editorial Board is indebted to Dr. Walter Kurland, Admitting-Personnel Physician of the Veterans Administration Hospital, a Consulting Editor of the Medical Annals, who secured the papers which appear in this issue.

Medical Program of the Veterans Administration (Mount Alto) Hospital

THOMAS J. READY, M.D.
Manager, Veterans Administration Hospital, Washington, D. C.

Mt. Alto hospital is a part of the Nation-wide system of 170 hospitals under the jurisdiction of William S. Middleton, M.D., Chief Medical Director, Department of Medicine and Surgery of the Veterans Administration. The VA medical program seeks to provide medical and domiciliary care, comparable with the finest in civilian practice, to eligible veterans. The hospital system has an authorized bed capacity of 125,000.

This Nation-wide program is based upon a triad which includes not only patient care but also research to improve diagnostic and treatment methods and education and training to advance the professional competence of its staff. The vast resources of the VA medical program established the agency as a significant contributor, not only to the health of veterans, but also to the general advancement of medical science. This has been accomplished with the substantial assistance of the Nation's medical schools and the interest and efforts of many members of the medical profession serving in advisory, consultant and training capacities.

Mt. Alto Hospital has 335 beds with a planned average daily patient load of 300. The beds are distributed as follows: 170 medical, 127 surgical, 18 psychiatric, and 15 neurologic. As a select hospital designated by the Chief Medical Director, it performs highly specialized medical treatment procedures in beta ray therapy, cardiac surgery, exposed eye implants, medical neurology, neurosurgery, plastic and maxillofacial surgery, radiation therapy, and thoracic surgery.

Extensive and varied medical research is conducted at Mt. Alto either independently or in collaboration with other hospitals. Current research projects include such activities as the use of radioisotopes, electronic data processing (vectorcardiography), cancer chemotherapy, cardiovascular surgical study, neuropsychiatry, metabolic diseases, renal physiology, tuberculosis, special cardiovascular study, sarcoidosis, tissue culture, arthritis, special bacteriology, hypertension, pulmonary physiology, electron microscopy, and aging. Programs planned for the immediate future include gastroenterology, anticoagulation study, and research in blood-vessel grafting.

The Deans of the George Washington University, Georgetown University and Howard University Schools of Medicine collaborate with the Manager and his staff in the supervision of medical residents and consulting staff. They are also responsible for the standards of the medical residency training and for the standards of medical research, and in general serve in an advisory capacity in medical matters. Mt. Alto currently has approximately 40 residents-in-training in the several medical specialties, and students are rotated from George Washington and Georgetown Medical Schools.

The original buildings were constructed about 1901 and were designed for a girls' school for dietetics. Subsequently these buildings were operated as an apartment hotel. The property was leased by the U. S. Public Health Service in June 1919 and opened as a general medical and surgical hospital. The property was purchased by the Veterans Bureau in June 1920. Buildings were added in 1925 and 1931.

Although the Hospital has enjoyed an excellent reputation in the community and within the medical profession for the quality of its medical care and treatment, it has long been recognized that the physical buildings are outmoded and should be replaced. Based upon the recommendation of the President, the Congress has approved funds for a 710-bed replacement hospital to be located on the grounds of the Soldiers' Home. This replacement hospital will be available in approximately 4 years. The modern plant will enable the Mt. Alto staff to continue its high quality of medical service and to expand its activities to better care for the veteran population of the Washington Metropolitan Area and to contribute to the general advancement of medical science.

Medical Care Available to Veterans through the USVA

WALTER KURLAND, M.D.

Chief, Admitting Service, Mt. Alto Veterans Administration Hospital, Washington, D. C.

By congressional resolution or presidential directive a veteran is an individual who served in the military services of the U.S.A. during any portion of the following periods and did not receive a dishonorable discharge:

27 June 1950 to 1 February 1955	Korean War
7 December 1941 to 31 December 1946	World War II
6 April 1917 to 11 November 1918	World War I
21 April 1898 to 12 August 1898	Spanish-American War

If an individual served in the military services of the U.S.A. against the enemy during the following periods, he is also considered to be a veteran:

1918 to 1920	U.S.A. forces in Russia
1915 to 1916	Mexican Border
13 August 1898 to 4 July 1902	Philippine Insurrection (to 15 July 1903 if served in Moro provinces, Cuba, Guam, or adjacent borders)
20 June 1900 to 12 May 1901	Boxer Rebellion
Indian Wars	

An individual who has served in the military services of the U.S.A. during other periods than the above is not a veteran. He (she) is an ex-peace-time serviceman. If he was separated from the armed service because of a disability incurred in line of duty, he is entitled to the same medical care as a veteran.

Before outlining the medical care available to veterans some definitions are in order:

A service-connected (SC) ailment is one that has been adjudicated by the USVA (United States Veterans Administration) as having been incurred in or aggravated by the veteran's wartime military service. In such instances the veteran will have received a "letter of award" from the USVA attesting to this fact and in layman's terminology naming the ailment.

A nonservice-connected (NSC) ailment is one that has not been adjudicated by the USVA as having been incurred in or aggravated during the veteran's wartime service.

Hospital treatment is treatment wherein the patient has to be put to bed in the hospital, needs the daily 24-hour supervision of a registered nurse (R.N. as opposed to a practical nurse), and needs at least daily visits by a physician or surgery with more than simple local anesthesia in an operating room.

Outpatient treatment is treatment that can be given in a physician's office, in a clinic, or in the patient's home.

Emergency hospital treatment is a situation wherein if the patient is not given hospital treatment immediately he will suffer irreparable damage to his health.

Outpatient Treatment

Only veterans with service-connected ailments or Spanish-American War veterans (regardless of the nature of the ailment) are entitled to outpatient treatment from the USVA. It is to be noted that, except for Spanish-American War veterans, only the service-connected ailment and no other ailment may be treated. Such treatment is arranged for by communicating with the Outpatient Clinic, Veterans Benefits Office, 21st Street and Constitution Avenue, N.W., Washington, D. C., telephone Dudley 9-3329.

HOSPITAL TREATMENT

Any veteran is entitled to hospital treatment in a USVA hospital provided that he (she) meets the legal, financial, and medical qualifications. Legally he must be a veteran, and medically he must require hospital treatment as outlined in the foregoing. Veterans with service-connected ailments are not required to meet any financial qualification, regardless of the nature of the illness calling for hospitalization. All other veterans are required to complete a financial statement denoting their assets and liabilities and to sign an oath attesting to their inability to defray the expense of private hospitalization. It is to be noted that a veteran need not have a service-connected ailment to qualify for hospital treatment. However, veterans requiring hospital treatment for nonservice-connected ailments are entitled to hospitalization by the USVA only if beds are available.

A physician seeking USVA hospital treatment for his patient should first assure himself that the patient meets the qualifications enumerated above.

If the veteran needs emergency hospital treatment, as defined previously, the physician should call the admitting physician at the USVA Hospital (Mt. Alto), 2650 Wisconsin Avenue, N.W., Washington, D. C. The telephone number is Federal 7-3800. Between 8:00 a.m. and 4:30 p.m. (except Saturdays, Sundays, or holidays) he should ask for extension 321. At all other times he should ask for extension 320 or 209. It is to be noted that veterans already under care as bed patients in other hospitals are not considered to be in need of emergency hospital treatment.

If the veteran needs nonemergency hospital treatment, the physician should communicate with the Hospitalization Section, Room 1802, 1st Floor, 8th Wing, Veterans Benefits Office, 21st Street and Constitution Avenue, N.W., Washington, D. C., or telephone Dudley 9-2979 between 8:00 a.m. and 4:30 p.m. except on Saturdays, Sundays or holidays. If the veteran desires, he may apply directly for hospitalization during the above hours at the above location. In such a case he should take his honorable discharge certificate from the armed services with him.

Patients are not hospitalized in USVA hospitals solely for nursing care (i.e., do not meet the definition for hospital treatment) or solely for the purpose of getting physical medicine treatment.

The above information is not all-inclusive regarding medical care available to veterans from the USVA. It is primarily designed for physicians practicing in the Washington, D. C. area. Further information regarding USVA medical care may be obtained by communicating with the Medical Administrative Section, Veterans Benefits Office, 21st Street and Constitution Avenue, N.W., Washington, D. C., or by telephoning Dudley 9-3680.

Physicians in other areas desiring information regarding medical care available to veterans should communicate with either the USVA Regional Office or the USVA Hospital nearest to them.

Integrated Patient Care

RUBIN H. KAPLAN, M.D.

Director of Professional Services, Veterans Administration Hospital, Washington, D. C.

THIS IS THE AGE of specialization. The internist of yesterday is the organ specialist of today. His practice is limited to the blood or the heart or the lungs or the kidneys, etc. Although some specialists still retain a hold on more than a single organ, i.e., the gastroenterologist on the pancreas, even that hold is precarious and he must share it with the diabetician and the endocrinologist. The day is not distant when that organ and others of divided interest will also have their specific keepers. The family doctor of the past provided "whole patient care." Not only was he the internist, the surgeon, the obstetrician, the pediatrician and the psychiatrist, but also the physiatrist, the chaplain, the social worker, and the dietitian, in addition to being the advisor and friend of his patients and their families. This old-time practitioner of yesteryear has become the generalist of today, but even his sphere is contracting. He will with time encompass fewer and fewer of the fields of medicine until he will find himself restricted to what not so long ago had been itself a specialty, internal medicine.

The field of the physician narrows, but the demand for the recognition and treatment of the patient as a whole becomes more vociferous. One field narrows, the other widens. Two diametrically opposed concepts which now live side by side must be reconciled.

The tremendous increase in specific and detailed knowledge in the medical and paramedical fields is certainly far beyond the power of retention of single individuals. "Whole-patient care," the concept of a person, the patient, within a therapeutic circle, the family physician, is today an anachronism. Today that circle, still about one individual, the patient, is made up of numerous persons each trained in his specific discipline. This latter concept—therapy shared by specialists, medical and nonmedical—is the basis for integrated patient care.

The concept of Integrated Patient Care in the hospital for acutely ill patients was first discussed at a VA Area meeting about 3 years ago, but professional personnel resist change and the idea was not acceptable to the group at this hospital at the time. Several expressed the opinion that there just was not time for such rounds and that the suggestion was not feasible and certainly would not be productive. The concept was revived about a year ago, and it is not strange that it was reconsidered, since "whole-patient care" has long been effective in the VA Tuberculosis and Neuropsychiatric Hospitals. The basic difference is the use of this multidiscipline approach, which has proven most successful in the therapy of the chronic patient in a General Medical and Surgical Hospital with its acutely ill patients.

In February of 1960, as a trial, Integrated Patient Care Rounds were started at Mount Alto on one medical and one surgical ward on a once-weekly basis. To include all possible facets of care other than that usually obtained by consultation, representative paramedical and administrative personnel were present in addition to representation from certain medical categories which might not, in the normal course of events, have been fully utilized. It was imperative that there be full effective representation. All present must have a possible place in a patient's care or at least in a problem relating to his care.

The services finally chosen included the ward resident physician and ward nurse, the assistant chief of the medical service, the psychiatrist (representing the Neuropsychiatric and Psychology Services), and personnel from the following: Dental, Social Work, Physical Medicine and Rehabilitation, Dietetics, Chaplaincy, Library, and Medical Administrative Services. Seldom is any one service involved in every patient's therapeutic plans, but it is unusual if a particular service is not called on at least several times during the course of a ward survey. Time was also a factor, and Integrated Patient Care Rounds were limited to approximately 30 minutes to a ward. It was arbitrarily determined that each ward, one medical and one surgical, in this preliminary trial be visited weekly.

In the actual procedure of Integrated Patient Care Rounds the previously mentioned group meet on a designated ward according to a prearranged schedule. Depending upon the decision of the ward physician the group participates in either a patient-to-patient or a chart-to-chart type of rounds. The ward physician briefly summarizes each patient's pertinent medical data and available social information. The probable length of stay, the type of care necessary after discharge, whether the patient will be physically and medically able to continue in his previous abode, and possible discharge plans are discussed by the physician and the group, and definite recommendations are made.

Integrated Patient Care Rounds improve the overall quality of medical care. For the medical chiefs of service it is an aid in evaluating the resident in the light of his understanding of his medical responsibilities, of his acceptance and use of the paramedical personnel's contribution of training and experience, and of his ability and willingness to take full advantage of every therapeutic measure. For the resident it helps develop his insight in what can be done for the patient as a person. Treatment of his patient is no longer the treatment of particular diseases or organs. He learns that total patient care must involve understanding of his home, his family, his social and financial status, and frequently, of necessity, his relation with the community. For the paramedical personnel it gives a realistic appreciation of the therapeutic problem of the physician, a better understanding of the patient's disease process, and the knowledge of the very important and indispensable niche which they too occupy in overall patient care.

This trial of weekly Integrated Patient Care Rounds on 1 surgical and 1 medical ward continued through the months of February and March. In March the personnel concerned met to review the results of, and their attitude toward this method of whole patient care. The enthusiastic acceptance by the entire group was most unexpected. An extremely rewarding result of the program has been the ready acceptance of the paramedical services by the physician and the betterment of morale of the paramedical personnel upon becoming an integral part of the treatment team.

With the unequivocal acceptance of the principle and methods of integrated patient care the program was extended in April to include all the medical and 3 of the surgical wards. To keep within the 30-minute time limitation for the rounds, the 2 largest of the 5 medical wards were divided so that only half of the patients were discussed during a scheduled meeting. In this way all the wards were covered in 10 morning meetings, 1 each weekday morning for 2 weeks. The same ward is rescheduled the same day every 2 weeks.

The functioning of the group can be best illustrated by using a theoretical patient with a composite of the problems brought to the attention of the group on every ward. This 65-year-old veteran has portal cirrhosis, a peptic ulcer, and evidence of senility. He may be ready for discharge in approximately 2 weeks. He has close relatives in the area, but their household, which includes several children, is too small to include him. Although he does have a small income, it would be utterly unreasonable for him to live alone and he agrees he is unable to adequately care for his own needs. To complicate the situation the relatives are adamant that he not be transferred to the nearest (in Pennsylvania) VA hospital with available long-term illness beds.

All members of the integrated patient care team have a particular and specialized part to play. The psychiatrist will evaluate the patient's mental condition, and the social worker will plan with the patient and his relatives, taking into full consideration his limited funds and possible help from the family, and seek out an acceptable nursing home in the area. The dietitian will concern herself with planning a suitable diet and will instruct the patient as to the importance of a properly balanced and nutritious menu, taking into consideration that the patient has both a liver disease and peptic ulcer. The chaplain will do his part with spiritual support and will attempt to dissuade the patient from the further use of alcoholic beverages. If this 65-year-old veteran is weak from malnutrition and prolonged bed rest, the Physical Medicine and Rehabilitation Service will, through various physical medicine modalities, attempt to strengthen his wasted muscles and through occupational therapy revive his interest in accomplishment. The librarian will cater to his reading whims and make an effort to interest him in available newspapers, magazines and books. The Dental Service also plays its part, since patients with peptic ulcers are entitled by VA regulations to all necessary dental care while hospitalized. Knowing the plans for discharge, the dentists can speed up this patient's dental program so that as much as possible will be completed during the planned hospital stay.

If the patient has been hospitalized at another VA hospital (and certain medical information during a previous period of hospitalization is extremely important in the present care program) the representative from the medical administrative service is called upon. He can by telegraphic communication either speed up the transmittal of the previous hospital chart or, if important enough, obtain answers for the physician's questions by means of a telegraphic or telephonic conference.

During this period of concentrated effort by various services the physician and the nurses are doing their part in raising the patient's medical condition to its optimum so that he will be ready for discharge according to plan.

The coördinated efforts of this multidisciplined group have improved patient care both in the hospital and following his discharge. These results fully justify the increased scope of the program. It is unfortunate that the wards cannot be visited weekly rather than biweekly in order to maintain a more intensive followup of plans. Although the carrying out of recommendations made to each service is the responsibility of the particular service, a record of all recommendations is kept by one member of the group. These recommendations are discussed on each subsequent visit to the ward and progress or lack of it noted.

The benefits of the Integrated Patient Care Rounds are manifold. Obviously necessary consultations are requested without loss of time. Medical (dietary, dental, physiotherapy, etc.), social or psychiatric aid not previously obvious but now brought to the fore by group discussion is also requested. Discharge planning becomes definitive early in the patient's stay. No longer is there the problem of where the patient might go—to his home, to a nursing home, or to a chronic, long-term hospital—when the resident physician writes the order for the patient's discharge. Post-hospital medical, social, and psychiatric care is now planned well in advance.

The patient and his family are unaware of the coöperative effort of this multidisciplined group, but since the inauguration of the rounds have demonstrated a positive acceptance of the discharge planning. Former evidence of dissatisfaction, manifested by the family's frequent use

(*Continued on page 654*)

Mediastinal Emphysema*

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SOL KATZ, M.D., F.A.C.P.
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SINCE THE EARLIEST description of mediastinal emphysema (pneumomediastinum) over a century ago by Laennec,[1] and particularly during the past 2 decades, much physiologic interest and clinical fascination of this entity have been encountered.

ANATOMIC CONSIDERATIONS

Of initial importance is a brief review of the anatomy[2] of the mediastinum and its relationship to the trachea, bronchi and esophagus, the pulmonary vessels, the deep cervical fascia, and the retroperitoneal space, since these are routes by which air may enter and leave the mediastinal space.

The mediastinum or interpleural space is bounded laterally by the mediastinal pleura, anteriorly by the posterior aspect of the sternum, and posteriorly by the anterior surfaces of the 12 thoracic vertebrae; it is limited superiorly by the thoracic inlet and inferiorly by the diaphragm, and it is divided arbitrarily into 4 subdivisions by virtue of contained structures and by extension of the deep cervical fascia of the neck to various points of insertion within the mediastinum. The heart and its coverings, the great vessels, trachea, bronchi and esophagus are some important structures contained in this space.

The central portions of the mediastinal pleura are perforated by the pulmonary vessels and bronchi. These structures are encircled at this point by a cuff of connective tissue and pleura and enter directly into the pulmonary parenchyma from the mediastinum; the connective tissue sheaths of the pulmonary vessels and bronchi are, therefore, continuous with the connective tissue within the mediastinum. The deep cervical fascial planes of the neck are in direct communication with the mediastinal space, and there is also fascial plane continuity between the retroperitoneal space and the mediastinum. From the retroperitoneal space air may proceed along the large vessels to enter the mediastinum through the esophageal and aortic foramina. Direct communication of the mediastinum with the peritoneal cavity has not been experimentally proved.

ETIOLOGIC AND PATHOPHYSIOLOGIC CONSIDERATIONS

A host of specific causes of mediastinal emphysema have been reported and may be included in 3 principal etiologic groups: local or generalized hyperinflation with or without associated increased intra-alveolar pressure, trauma, and spontaneous occurrence.

Local or generalized hyperinflation with or without associated increased intra-alveolar pressure as a cause of mediastinal emphysema has been well documented by the experimental studies of Macklin,[3] Macklin and Macklin,[4] and

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* From the Medical Service, Veterans Administration Hospital, Washington, D.C.

Griffin.[5] These authors have shown that the fundamental requisite for air escape from alveoli to other structures is the presence of an air pressure gradient, this gradient mainly relating to the alveoli and pulmonary vessels. Anatomically, alveoli may be divided into the "partitional" type (those alveoli whose bases are opposed to other alveoli) and "non-partitional" or "marginal," in which the bases of the alveoli lie against bronchi, bronchioles, blood vessels, connective tissue septae or pleura. In the "partitional" type air may pass through tiny alveolar pores (pores of Kohn) from one alveolus to another, maintaining an equal pressure throughout. However, in the marginal type, if an increased intra-alveolar pressure develops, air would pass into the connective tissue of the structure against which the alveolar base lies. When alveoli whose bases lie against other alveoli, bronchi or bronchioles are hyperinflated no pressure gradient exists because the same pressure which "over inflates" these alveoli is transmitted to other alveoli via the alveolar pores and also is reflected in the bronchi and bronchioles which delivered the pressure increase. Overdistended alveoli, however, that border upon blood vessels which do not have a corresponding increase in circulatory pressure to counteract the increased intra-alveolar pressure and thus produce a pressure equilibrium create a pressure gradient from alveoli to the connective tissue surrounding the pulmonary vessels. A theoretical consideration may be that an air pressure gradient may also exist if there is hyperinflation of alveoli with normal intra-alveolar pressure if associated with a simultaneously decreased pulmonary vessel pressure. Most commonly the air pressure gradient is a result of alveolar hyperinflation with increased intra-alveolar pressure, associated, perhaps, with some decreased pulmonary vessel pressure.

With alveolar hyperinflation a significant air gradient may exist between the alveoli and the pulmonary vessel adventitia, if the pressure of the vessel sheath is not correspondingly elevated, to the degree of actual alveolar rupture with the production of pulmonary interstitial emphysema. In this event air escapes from the ruptured alveoli to the perivascular adventitia in the form of air bubbles, at first very minute but rapidly coalescing and forming a train of ever-enlarging bubbles proceeding from areas of greater pressure along the course of the pulmonary arteries and veins to the hilum to enter the connective tissue of the mediastinal space (figure 1).

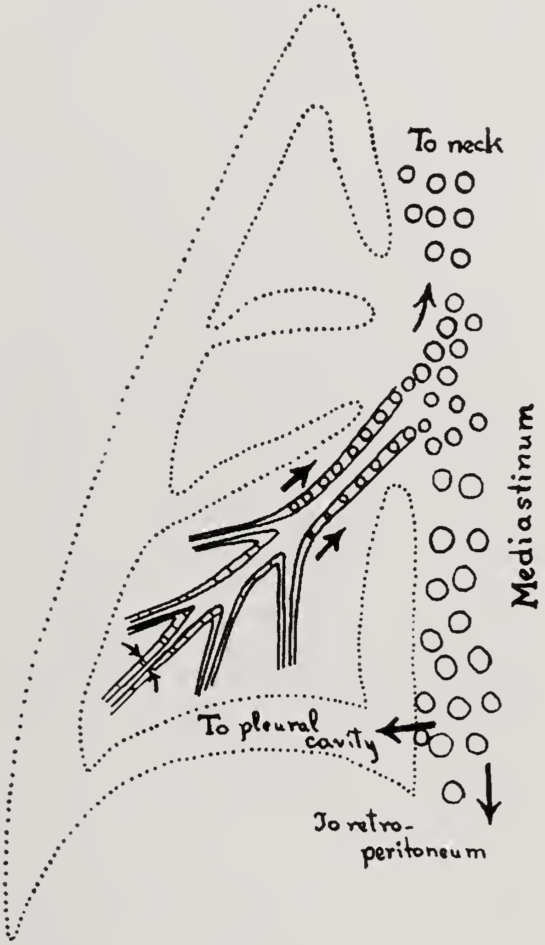

FIG. 1. Diagrammatic illustration of the path of air movement from the alveoli of the lung to the mediastinum via the perivascular sheaths and routes of air escape from the mediastinum. Only the artery is shown. (After Macklin, C. C.: Canad. M.A.J., 1937, 36, 414.)

With special technics, Macklin and Macklin,[4] in their experiments on living anesthetized cats and isolated calf lungs, were able to demonstrate microscopic ruptures in the alveolar bases and air bubbles in the perivascular sheaths. With increasing air pressure capillaries were also noted to be ruptured and blood cells were found in the vascular sheaths. In these experiments no evidence of air in the sheaths of the bronchial tree was observed.

Local or generalized hyperinflation associated with increased intra-alveolar pressure with production of pulmonary interstitial emphysema and pneumomediastinum may occur from (a) complete or partial obstruction of the trachea or bronchi, (b) positive pressure, or (c) forceful expiration with a closed glottis.

Complete bronchial obstruction is associated with atelectasis, resulting in hyperinflation of segments adjoining the atelectatic area or hyperinflation of other segments of the same or opposite lung; partial obstruction of the trachea or bronchi may lead to air-trapping with associated hyperinflation and increased intra-alveolar pressure. The following clinical entities have been reported as causes of mediastinal emphysema and are probably due to this pathophysiologic mechanism: asthma, chronic bronchitis, laryngotracheobronchitis, atelectasis of the newborn (due to prematurity or aspiration of mucus or meconium), pneumonia, diphtheria, tuberculosis, silicosis, measles, whooping cough, influenza, foreign bodies in the bronchi, glass-blowing, playing of a wind instrument, bronchiectasis, violent cough, and hiccup.

Induction of positive pressure may produce generalized hyperinflation and increased intra-alveolar pressure, as reported in inhalation therapy, lung blast, caisson workers, closed methods of anesthesia with or without endotracheal tube, and intermittent positive pressure.

Forceful expiration with a closed glottis leads to increased intra-alveolar pressure and may occur in association with parturition, straining at stool, heavy lifting, and laryngospasm, and is a complication of tracheotomy.

Trauma as a cause of mediastinal emphysema is related to surgical procedures, either therapeutic or diagnostic, injury to the chest with or without rib fracture, and rupture of the trachea, bronchi, esophagus, stomach or intestine.

Mediastinal emphysema may result during deep dissection of the tissue of the neck by passage of air along the deep cervical fascial planes which are anatomically continuous with the mediastinum; this has followed thyroidectomy, tracheotomy, tonsillectomy, irrigation of the maxillary sinus, and radical neck surgery. Induction of therapeutic pneumothorax, whereby alveoli are often perforated by the advancing needle, represents an ideal mechanism for air to escape into the pulmonary interstitium; therapeutic pneumoperitoneum with either rupture of air into the retroperitoneal space from the peritoneal cavity or, most commonly, faulty air administration into the fascial planes of the abdominal wall allow for ready passage of air to the mediastinum. Perirenal air insufflation not uncommonly is associated with retroperitoneal air spread via the large vessels of the abdomen to the mediastinum through the aortic and esophageal foramina. Chest injury with rib fracture and subsequent rupture of alveoli may produce pneumomediastinum, as will crush injury to the chest without rib fracture or any penetrating wound to the lung parenchyma. Rupture of the trachea, bronchi, esophagus, stomach or intestine due to disease or trauma may result in mediastinal emphysema by release of air directly into the mediastinum, via the cervical fascia, or from the abdominal viscera into the peritoneal cavity with rupture into the retroperitoneal space, proceeding then to the mediastinum. Mediastinal emphysema as a complication of esophagoscopy and bronchoscopy is due mainly to the associated cough and hyperventilation with increase of the intra-alveolar pressure, although rupture of these organs by passage of the instrument may also occur.

Most fascinating, perhaps, is the spontaneous occurrence of interstitial emphysema of the lungs with associated mediastinal emphysema first described by Louis Hamman[6] in 1934. In his classic presentation Hamman described the clinical features of 2 patients who historically and clinically had no evidence of factors predisposing to the production of interstitial pulmonary emphysema. Since that time numerous cases have been reported. Spontaneous mediastinal emphysema occurs more commonly in young adults, especially males. Its onset may be sudden and occur while the patient is resting comfortably or standing quietly. It would appear that in this situation alveoli under normal pressure and inflation are subject to rupture; since recurrence is not uncommon, an inheritable defect of connective tissue may be responsible. Macklin and Macklin,[4] however, suggest that atelectasis (subclinical) with local hyperinflation may be the etiologic factor. A third possibility is that hyperinflated alveoli may remain distended, only to rupture many hours later. It is apparent that there is question concerning the presence or absence of low-grade infection or atelectasis as a predisposing factor in spontaneous mediastinal emphysema, and, therefore, every effort must be made to rule out their presence in a suspected case of spontaneous mediastinal emphysema. Also, although often described, it is this spontaneous variety of mediastinal emphysema which most requires emphasis, since in the usual case of chest pain this diagnosis is rarely entertained, nor are the clinical features vigorously searched for.

PATHS OF AIR ESCAPE FROM THE MEDIASTINUM

Once air has reached the mediastinum it may remain and increase in pressure as more and more air enters. It may be absorbed or it may escape from the mediastinum along one or more of the 5 following pathways (figure 1): (1) along the fascial and subcutaneous plane of the neck, subcutaneous spread of air being so widespread as to occasionally extend from the scalp to the soles of the feet, and the air dissecting its way along the deep fascial plane of the neck rarely producing swelling of the submucous tissue of the mouth and throat so severe as to cause asphyxiation; (2) into the pleural space subsequent to rupture of the mediastinal pleura, thus producing pneumothorax, usually small, and occasionally under tension due to the associated "splinted" lung and most often located on the left side, and, although rupture from the mediastinum to the pleural cavity is observed, rupture from the pleural cavity into the mediastinum apparently does not occur; (3) into the hilar connective tissue to follow the course of the intrapulmonary vessel sheaths of the opposite lung or into previously uninvolved areas of the same lung, with further accentuation of the pulmonary "splinting" or "air lock" phenomenon; (4) forward extension through the pretracheal fascial layer to lie between the mediastinal parietal pleura and the parietal pericardium; and (5) along the periaortic and periesophageal connective tissue through the aortic and esophageal foramina to reach the retroperitoneal space.

CLINICAL FEATURES

SIGNS

Hamman's sign. Muller in 1888 described, as characteristic, a fine auscultatory crepitation synchronous with the heart beat in mediastinal emphysema.[7] In 1934 and 1937 Hamman[6, 8] reemphasized the significance of this sound in his descriptions of spontaneous mediastinal emphysema.

The sound is heard best over the left side of the chest anteriorly along the sternal edge at the level of the third through sixth intercostal spaces along the lower sternum and at the apex. It may occasionally be heard over the entire anterior chest wall. It is heard in perhaps 50 per cent of cases. It may be barely audible or it may be heard by the patient and observer at a distance from the chest by the unaided ear. It may be heard best in the sitting or the left lateral decubitus position and may vary in intensity with respiration and position. The sound may be heard for as short an interval as a few hours or as long as 6 weeks. The average duration is approximately 8 days. It is synchronous with the heart beat, occurring most commonly with systole but occasionally being heard in both systole and diastole and almost always with systolic accentuation. There are no regular components of this sound as in the pericardial friction rub, and the quality of the sound is generally more coarse than that produced in pericarditis. Hamman's sign has been described as crunching, bubbling and tapping and is best likened to the crackling of cellophane or the sound of footsteps in packed snow on a brisk winter day. The patient, too, may state that he is aware of a "sound in his chest" when he assumes certain positions and may exclaim that he feels "water and air being mixed together with each heart beat" or that there is a "wet sponge" in his chest.

The probable mechanism of this sound is related to the beating action of the heart against the myriad of air bubbles located between the anterior cardiac surface and the chest wall. Macklin[3] has demonstrated anatomically the presence of these air bubbles between the heart and anterior chest wall in pneumomediastinum induced in animals after removal of the sternum.

Although the sound has been considered pathognomonic, similar sounds may also be heard in left-sided pneumothorax, dilated lower esophagus, bullous emphysema of the lingular segment, pneumoperitoneum with a high left hemidiaphragm, and gastric dilatation.

Decrease or absence of the area of cardiac dullness. This sign occurs in one-third of the cases of pneumomediastinum, but this may also occur in bullous emphysema, left-sided pneumothorax, dilated stomach, and pneumoperitoneum, the mechanism being that of air interposed between the heart and the anterior portion of the chest wall.

Subcutaneous emphysema. This condition has long been recognized in association with mediastinal emphysema and is the most reliable and diagnostic of all the signs in this disorder, being seen in approximately 25 per cent of cases. Air escaping from the mediastinum dissects into the fascial planes of the subcutaneous tissue, extending into the upper anterior chest, neck, and shoulders most commonly. The distribution may be extensive (from the scalp to the soles of the feet) with obvious crepitation felt on palpation, or there may only be a small localized zone of subcutaneous emphysema in the upper parasternal area detected only (occasionally by accident) by auscultation when the diaphragm of the stethoscope is slowly pressed upon and withdrawn from this area. Localized small areas of subcutaneous emphysema thus may be missed if palpation is the only technic used. Other causes of subcutaneous emphysema in these locations (neck and anterior chest) are trauma to the neck or mouth and localized gas gangrene; however, these causes are detected quite readily. Occasionally there is no evidence of subcutaneous emphysema, and it is this lack of "check valve" mechanism or "air release" that may direct one's thinking toward the possibility of rising pressure in the mediastinal space.

Pneumothorax.[9] This condition is found in approximately one-third of cases of spontaneous mediastinal emphysema and is usually small. Due to the inability of the "splinted" lung of pulmonary interstitial emphysema to collapse, tension pneumothorax not uncommonly develops. Pneumothorax is more often seen on the left side than on the right and is rarely bilateral. Air in this instance escapes into the pleural cavity from the mediastinum via a rupture site in the mediastinal pleura as the mediastinal pressure reaches a critical level.

Major vessel compression. Signs of this condition rarely develop due to increased mediastinal air pressure. If the caval veins are compressed there is decreased inflow of blood to the heart, and tachypnea, dyspnea, cyanosis, cervical vein distention (as the venous pressure rises), pulsus paradoxus, and fall in systemic blood pressure occur; if there is further increase in the mediastinal air pressure pulmonary edema and death may result. If the pulmonary veins are compressed, pulmonary congestion ensues. This is rarely if ever seen in the spontaneous type of pneumomediastinum and occurs occasionally in the secondary form, when, for reasons yet unexplained, the avenues of air escape from the mediastinum fail to perform their "check valve" function.

Temperature and pulse rate. Elevation of temperature is uncommonly seen in mediastinal emphysema of the spontaneous kind; however, the predisposing factor to the development of pneumomediastinum in the secondary types may be associated with temperature elevation (e.g., pulmonary infection). During the acute phase of chest pain there may occur a modest rise in the apical pulse rate. If mediastinal pressure is greatly elevated, with cardiac and large vessel compression, tachycardia will ensue. Tachycardia in other instances is due usually to anxiety or is secondary to the basic disease predisposing to mediastinal emphysema.

X-ray signs. The roentgenographic criteria for mediastinal emphysema include a linear radiolucent zone along the left cardiac border. A thin radiopaque line representing the mediastinal parietal pleura is present adjacent to this radiolucent zone. If a large amount of air is present in the mediastinum an air halo surrounds the heart.[10] There are also radiolucent streaks running in the vicinity of the great vessels at the base of the heart and best seen on the lateral projection, a radiolucent area on the lateral projection between the cardiac border and the anterior portion of the chest wall, evidence of subcutaneous emphysema, especially in the supraclavicular and cervical areas, and unusual definition of the aortic knob.

Chapman[11] has emphasized the importance of air movement within the pleural cavity in pneumothorax. Should pneumothorax air lie against the left mediastinal pleura the roentgenographic appearance is that of a radiolucent zone lying along the left cardiac border, i.e., simulating the appearance of air located between the mediastinal parietal pleura and the parietal pericardium (mediastinal air). If in this case the patient is placed in the right lateral decubitus position the pneumothorax air will move and rise against the left lateral wall of the chest. Only when one observes definite lucent zones bilaterally along both cardiac borders can one safely surmise that the air is located in the mediastinum; for if this were not the case one would have to implicate a bilateral pneumothorax with the doubly uncommon occurrence of air lying against the mediastinal pleura. If subcutaneous emphysema also is present one can be definite as regards the diagnosis of mediastinal emphysema; however, if only one cardiac border shows a lucent area, films in the lateral decubitus must be made to rule out an associated pneumothorax. Oblique films also may be helpful in detecting air localized to the posterior mediastinum. Chapman suggests the following views when confronted with possible mediastinal emphysema: upright posteroanterior in expiration, expiration films in both lateral decubiti, and expiration films in the dorsal decubitus position and both oblique positions.

In cases of air dissection into the retroperitoneal space from the mediastinum an abdominal film may reveal air contrasts of the contained viscera.

Electrocardiogram According to Aisner and Franco[12] rather nonspecific electrocardiographic changes are present in perhaps one-fourth of cases of spontaneous mediastinal emphysema. The more common changes observed are T-wave depression, S-T elevation, and voltage decrease. Rarely myocardial infarction and pericarditis may be simulated.

SYMPTOMS

Pain. Pain is the most common symptom in spontaneous mediastinal emphysema, occurring in 90 to 95 per cent of cases.[13] Its onset is sudden, as a rule, and it is quite severe in over 50 per cent of cases. The pain is usually of a sharp, stabbing nature, but it may occasionally be described by the patient as "oppressive" or as if a "pressure is trying to burst out of my chest." It is usually substernal, precordial or apical but may be anywhere in the anterior portion of the chest (most commonly on the left side). Radiation of pain to the neck, left shoulder and left arm is not uncommon; radiation may also occur to the back. The pain, therefore, may closely simulate that of myocardial infarction, coronary insufficiency, or pericarditis. Coughing, swallowing or change in position, especially the left lateral decubitus, may accentuate the pain; other positions (the erect) may decrease the degree of pain. The duration of pain is variable and may last for only a few minutes, several hours or days. The severity and duration of pain are apparently dependent upon the degree of distention of the mediastinal tissues.

Occasionally another type of pain may herald by a few hours the onset of "mediastinal" pain; this pain is characterized as a fleeting twinge of pain in the lateral chest, presumably due to the early development of pulmonary interstitial emphysema with interference to pulmonary blood flow. Mediastinal pain occurring several hours later may be distinguished by its greater intensity, sharper character and more central location. Should air escape into the retroperitoneal tissue one may experience back or abdominal pain.

Dyspnea. Dyspnea occurring in spontaneous mediastinal emphysema is usually mild and rarely associated with cyanosis or orthopnea. It is apparently more common in those cases with associated pneumothorax. The mechanism is perhaps a combination of splinting of the lung due to interstitial emphysema (producing respiration mainly in the inspiratory phase) and interference with the pulmonary blood flow.

Dysphagia. Difficulty in swallowing may occur and is probably due to air in the peri-esophageal connective tissue under pressure.

Other symptoms. Anxiety and profuse perspiration may occur at the onset of pain. Palpitation, pain on turning the neck, pain on deep inspiration, and crackling of the tissues in the neck may also be present.

Lack of significant fever, leukocytosis, sedimentation rate elevation, tachycardia, hypertension, or shock are important diagnostic features of spontaneous mediastinal emphysema.

DIFFERENTIAL DIAGNOSIS

Practically any disorder capable of producing acute or subacute chest pain may be included in the differential diagnosis of spontaneous mediastinal emphysema. Some of the more important considerations are coronary insufficiency, myocardial infarction, pericarditis, pulmonary embolism with infarction, dissecting or ruptured aortic aneurysm, pleuritic irritation secondary to infection, intercostal neuritis, mediastinitis, spontaneous pneumothorax, and rupture of the esophagus.

Most important in the diagnosis of spontaneous mediastinal emphysema is "to think of it"; this diagnosis relative to the other diagnoses listed above is perhaps the simplest to rule in or rule out. Familiarity with the more common signs and symptoms (Hamman's sign, and especially subcutaneous emphysema) coupled with knowledge of the important negative factors, such as lack of shock, fever, tachycardia, leukocytosis and elevated sedimentation rate, will, we are certain, raise the incidence of this not uncommon disorder.

TREATMENT

A small amount of air in the mediastinum without evidence of mediastinal infection or increasing mediastinal or intrapleural pressure represents no real therapeutic problem, since this air is rapidly absorbed after closure of the source point. In this situation, typical of the spontaneous type, conservative therapy is used and consists of bed rest and sedation, control of cough or strain, and reassurance.

If respiratory or circulatory embarrassment occur due to increasing mediastinal pressure, cervical mediastinotomy may be necessary. A transverse incision above the suprasternal notch or above the clavicle on either side with blunt dissection to the anterior superior mediastinum will relieve the mediastinal pressure. In the presence of mediastinal infection drainage is also indicated.

The development of tension pneumothorax necessitates closed thoracotomy with an intercostal catheter connected to an underwater seal. This procedure will also facilitate more escape of air from the mediastinum.

Illustrative Cases

Case 1. A. J., a 48-year-old colored man, was admitted to the hospital with a 3-day history of dyspnea, anterior pleuritic chest pain, productive cough, fever and chills. On admission he was noted to have signs of pulmonary consolidation in the left posterior thoracic region, a Hamman's sign anteriorly, and subcutaneous emphysema over the anterior portion of the chest and neck. X-ray films (figures 2 and 3) revealed mediastinal and subcutaneous air. The patient was treated with penicillin and made an uneventful recovery.

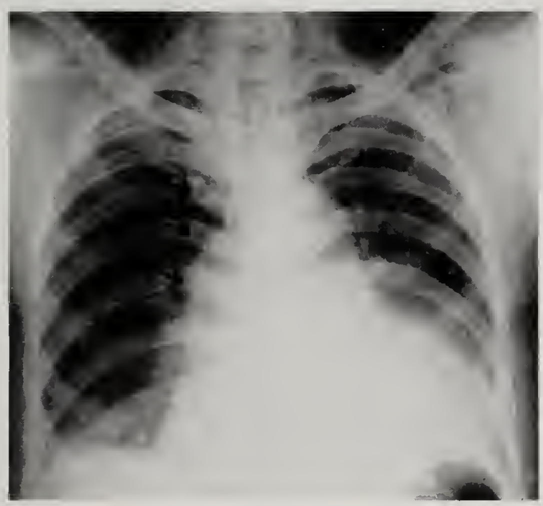

FIG. 2. Case 1, illustrating area of collapse and infiltration of left lower lobe, mediastinal air and subcutaneous air in the tissues of the neck.

In this case hyperinflation with rupture of alveoli was apparently secondary to pulmonary infection with associated atelectasis. Treatment of the infection and supportive therapy resulted in complete recovery.

Case 2. M. Z., a 45-year-old white woman, was admitted to the Georgetown Hospital for evaluation of recurrent dizzy spells. Vertebral arteriography was attempted via puncture of the right subclavian artery from the supraclavicular space. Difficulty was experienced in puncturing the subclavian artery, and deep penetration of pulmonary parenchyma was evident to the operator during the procedure. Within a few hours the patient developed a Hamman's sign and rather extensive subcutaneous emphysema involving the head, neck, upper extremities and anterior chest region. An X-ray film at this time revealed mediastinal and subcutaneous air (figure 4). Within 24 hours the patient became severely dyspneic and X-ray films of the chest revealed collapse of the right lung (figure 5). An intercostal tube was inserted with water seal, and prompt reëxpansion occurred. Within 48 hours of the onset of right pneumothorax left pneumothorax occurred (figure 6). Again an intercostal tube with

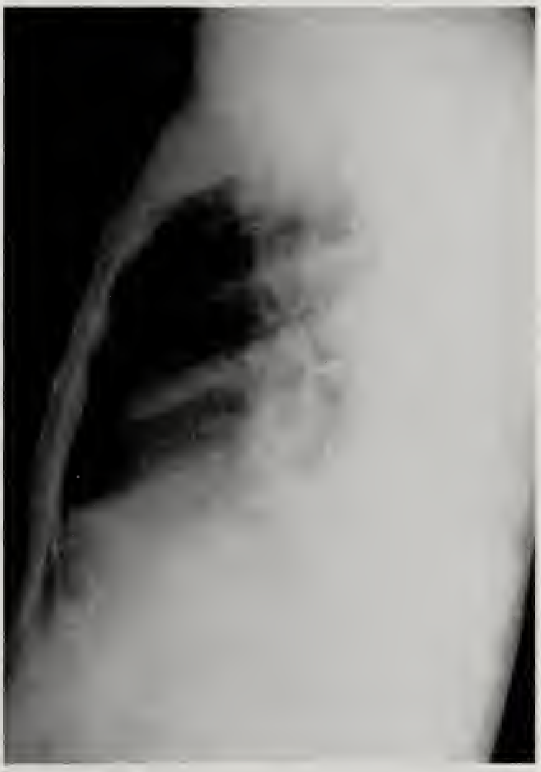

FIG. 3. Case 1, showing mediastinal air between the heart and anterior chest wall, and streaks of air along the fascial planes of the great vessels.

water seal was employed with reëxpansion of the left lung. The hospital course following this second episode of pneumothorax was uneventful.

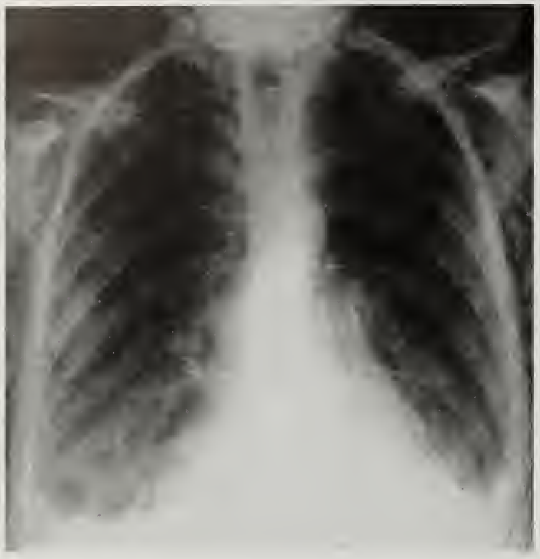

FIG. 4. Case 2, illustrating mediastinal air and massive accumulation of subcutaneous air.

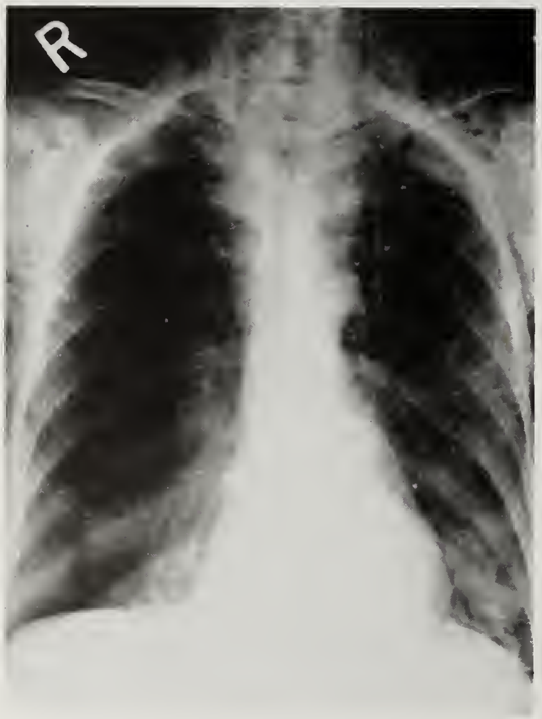

FIG. 5. Case 2, depicting right pneumothorax 24 hours after the X-ray film of figure 4.

It is thought that the mechanism in this case was primarily trauma with resulting rupture of alveoli by the advancing arteriographic needle, air dissection then occurring by way of the perivascular connective tissue of the lung to the mediastinum and then to the subcutaneous tissues of the neck, chest and extremities. Rising mediastinal pressures may then have produced rupture of the mediastinal pleura leading to pneumothorax on the right side, although one may speculate that the right pneumothorax resulted from the initial needle introduction.

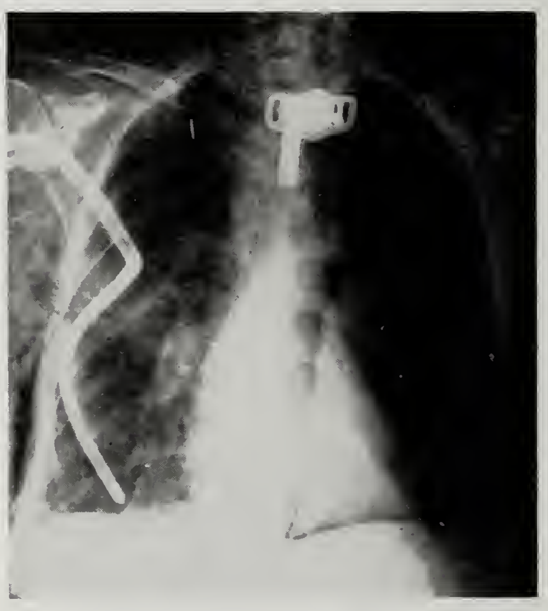

FIG. 6. Case 2, showing collapse of left lung taken approximately 48 hours after the X-ray film in figure 5.

With continuing increase of mediastinal pressure rupture of the left mediastinal pleura occurred with left pneumothorax resulting. Therapy was directed at relief of the pneumothoraces, and the patient recovered uneventfully without any direct decompression of the mediastinum. One may also speculate in this case as to the mediastinal decompression value of the intercostal tube with water seal.

Case 3. C. S., a 22-year-old white female nurse, noted the progressive onset of shortness of breath while relaxing comfortably at home 12 hours prior to her hospital admission. Six to 8 hours prior to admission she noted the onset of aching retrosternal pain aggravated by deep inspiration and followed shortly by a sense of fullness in her neck. On admission to the hospital vital signs were entirely normal, and the patient was in no acute distress; Hamman's sign was elicited along the left sternal border, and subcutaneous crepitation was present in the right side of the neck. X-ray films (figures 7 and 8) revealed mediastinal air along the right and left cardiac border and subcutaneous emphysema in the right supraclavicular area and the neck. An electrocardiogram was interpreted as normal. Admission blood count was entirely normal. Recovery was complete and uneventful after 5 days of conservative management.

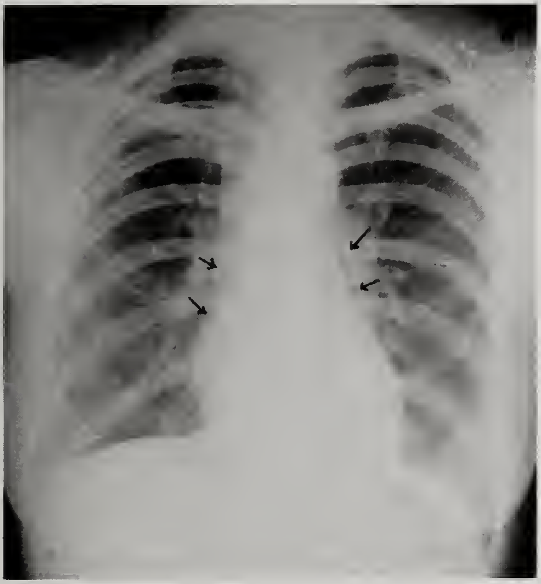

Fig. 7. Case 3, demonstrating mediastinal air bounded laterally by a thin white streak (mediastinal parietal pleura) along both cardiac borders.

This case represents the spontaneous occurrence of mediastinal emphysema; prior history of exertion, infection, and trauma could not be elicited. The mode of onset, symptoms, signs, and benign clinical course are considered typical.

Summary

A brief review of the anatomical, pathophysiologic and clinical aspects of mediastinal emphysema has been presented.

Three cases of mediastinal emphysema demonstrating the 3 major etiologies have been described.

The not uncommon occurrence of the spontaneous type of mediastinal emphysema has been emphasized.

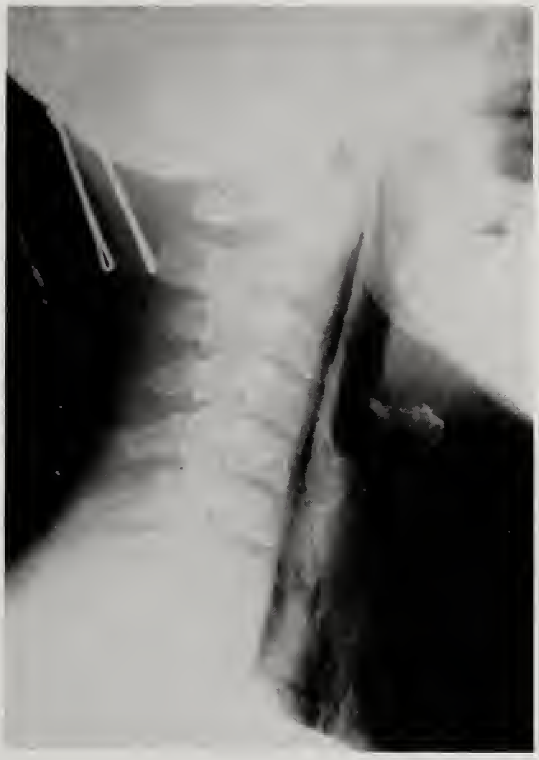

Fig. 8. Case 3, demonstrating subcutaneous and deep emphysema of the tissues of the neck.

Acknowledgment: We are indebted for the use of cases 2 and 3 to the Georgetown University Hospital.

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(Continued on page 654)

Comparative Effectiveness of Thiazide Saluretic Agents in Nonedematous Subjects

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THE COMPARATIVE EFFECTIVENESS of various saluretic agents is difficult to assess in edematous patients because of the great variability in responsiveness from one patient to another. Nonedematous individuals exhibit less variability of response, and hence small series of subjects can be used to derive an estimate of comparative potencies. Conditions can be further standardized by administering a constant daily salt intake and by utilizing hospitalized subjects who do not have diseases affecting fluid balance.

METHODS AND MATERIALS

Subjects were selected on the basis of being nonedematous and without evidence of impairment of renal function. They were placed on a 1.25 Gm. sodium chloride diet, which was supplemented by 3 Gm. of sodium chloride per day in tablet form to make a constant intake of 4.25 Gm. of sodium chloride daily.

Dihydrochlorothiazide (Esidrix, Hydrodiuril), trichlormethiazide (Su 7057, Naqua) and hydroflumethiazide (Saluron) were evaluated as follows: After a 48-hour adjustment period the patients entered a control period of 48 hours during which 2 24-hour control urines were collected. The average of the 2 collections was used for the control value. The subjects were then placed on the agent to be tested in the doses as indicated in table 1. Two 24-hour urines were collected during the test period. The average of the 2 collections was used for test value. Blood samples were collected both at the end of the control period and after 3 days of treatment and were analyzed for changes in serum electrolyte values.

Using a somewhat different technic, chlorthalidone (Hygroton) was separately compared with chlorothiazide (Diuril) as follows: After the 48-hour adjustment period, 2 24-hour urines were collected in the control period. Results were averaged and divided by 3 to give an average 8-hour control value. Subjects were then given a single test dose of either 500 mg. of chlorothiazide or 150 mg. of chlorthalidone. Urinary collection in the test period was partitioned into 3 8-hour specimens. By this method an evaluation of the duration of action of a single dose throughout the 24-hour period could be obtained. Serum electrolyte levels were determined at the end of the 24-hour period and compared to the control.

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All urine specimens were analyzed for sodium, potassium and chloride content as well as volume. Each individual was instructed as to the need to collect all urines. Each was questioned during the control period and immediately following the test period both by the physician and the ward nurse. Those with incomplete urine collections were dropped from the study. When agents were given in several doses or in comparison with chlorothiazide, they were assigned on a rotating basis.

RESULTS

Dihydrochlorothiazide (150 mg. per day) was used as the reference substance for comparison of the saluretic effectiveness of trichlormethiazide and hydroflumethiazide. This dosage of dihydrochlorothiazide previously was found in this laboratory to be as effective as 1,500 mg. of chlorothiazide per day.[1]

Hydroflumethiazide in a daily dose of 300 mg. produced in 5 subjects an average increase in sodium excretion of 151 (S.D. 85) per cent (table 1). This was comparable to the increase of 160 (S.D. 150) per cent observed after 150 mg. of dihydrochlorothiazide. Potassium excretion was similar, averaging 50 (S.D. 102) per cent above control with hydroflumethiazide and 47 (S.D. 39) per cent with dihydrochlorothiazide following a dose of 150 mg. per day. The saluretic effect of hydroflumethiazide following a dose of 150 mg. per day averaged 70 per cent above control with respect to sodium excretion.

TABLE 1

Effects of Dihydrochlorothiazide, Hydroflumethiazide and Trichlormethiazide on Urinary Electrolyte Excretion

Drug	No. of Patients	Dose mg.	Urinary Excretion Increase over Control Per cent‡				Serum Electrolytes Per cent Change at 72 hrs.		
			Vol.	Na	K	Cl	Na	K	Cl
Dihydrochlorothiazide	8	150*	85	160	47	207	0	17	7
	4	100*	23	84	23	145	+5	23	8
	3	75*	36	115	49	149	1	16	6
	8	37.5*	55	70	49	97	1	13	4
	2	18.75*	−19	27	−1	28	2	11	3
Hydroflumethiazide	5	300*	26	151	50	154	3	13	4
	3	150*	39	69	7	116	3	+6	5
Trichlormethiazide	6	10†	16	50	30	64	0	4	3
	6	5†	−8	30	5	64	0	15	6

* Daily dose divided into 3 equal increments.

† Daily dose divided into 2 equal increments.

‡ Average 24-hour excretion during first 48 hours after drug.

In 6 subjects given a daily dose of 10 mg., trichlormethiazide produced a mean increase in sodium excretion of 50 (S.D. 67) per cent, which was only one-third that produced by 150 mg. of dihydrochlorothiazide (table 1). Potassium excretion after trichloromethiazide averaged 31 (S.D. 29) per cent above pretreatment values. In 6 other subjects given 5 mg. per day the saluretic effect was still less; the increase in sodium excretion averaged only 31 per cent.

Serum electrolyte levels after 72 hours of continuous therapy with the above 3 agents showed a decrease in serum potassium that ranged from 10 to 20 per cent below control values as the only consistent change.

In order to investigate the claim that chlorthalidone produces a more prolonged saluresis than previously known agents, the increase in electrolyte excretions was compared in 3 consecutive 8-hour urine collections following a single dose of 150 mg. of the drug. Chlorothiazide in a single dose of 500 mg. of the drug was similarly evaluated in 8 additional subjects who served as the reference for comparison. The increase in sodium excretion over the mean 8-hour control values averaged 181 (S.D. 107) per cent during the first 8 hours after chlorothiazide and 275 (S.D. 181) per cent after chlorthalidone (table 2). The difference between the 2 drugs was not significant at the 0.05 level. During the second 8 hours the increase in sodium excretion averaged 43 (S.D. 106) per cent after chlorothiazide and 191 (S.D. 115) per cent after chlorthalidone. This difference in sodium excretion during the second 8 hours was significant at the 0.05 level and was, therefore, consistent with the claim for a longer duration of action of chlorthalidone (figure 1).

The ratio of sodium to potassium excretion during the first 8 hours averaged 2.3 following chlorothiazide and 1.6 after chlorthalidone. In the second 8 hours the sodium-potassium ratio was 1.2 with chlorothiazide and 2.1 with chlorthalidone. For the total 24-hour period the mean excretion of sodium was 159.9 mEq. after chlorothiazide and 215.6 mEq. after chlorthalidone. The mean values for potassium excretion were 68.7 mEq. following chlorothiazide and 107.2 mEq. after chlorthalidone. Thus, the 24-hour sodium potassium excretion ratio averaged 2.3 for chlorothiazide and 2.0 for chlorthalidone. These data do not indicate that chlorthalidone has any potassium-sparing effect in this dosage as compared to chlorothiazide. Serum electrolytes at the end of the 24-hour test period were insignificantly different from control values (table 2).

TABLE 2

Comparative Effects of Single Doses of Chlorothiazide and Chlorthalidone on Pattern of Urinary Electrolyte Excretion and Serum Electrolytes

Drug	No. of Patients	Dose mg.	Urinary Excretion Increase over Control Per cent				Serum Electrolytes Per cent Change at 24 Hours		
			Vol.	Na	K	Cl	Na	K	Cl
Chlorothiazide	8	500*							
1st 8 hours			43	181	78	196			
2nd 8 hours			41	43	35	74			
3rd 8 hours			10	35	0	13	−1.4	−6	−0.2
Chlorthalidone	8	150*							
1st 8 hours			100	275	175	352			
2nd 8 hours			74	191	91	233			
3rd 8 hours			−6	47	49	97	−3.1	−4.3	−1.9

* Single dose.

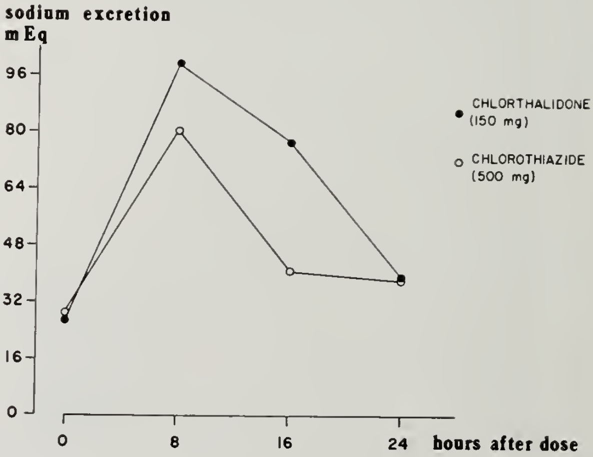

Fig. 1. Comparison of sodium excretion after a dose of chlorthalidone and of chlorothiazide.

DISCUSSION

Dihydrochlorothiazide appears to differ from chlorothiazide only quantitatively[1]; that is, the magnitude of sodium, potassium and chloride excretion is much the same with a dose range of dihydrochlorothiazide which is one-tenth to one-twelfth that of chlorothiazide.[1]

In the present study trichlormethiazide in the recommended dose[2] failed to reveal a natriuretic response of the magnitude seen with dihydrochlorothiazide or hydroflumethiazide. The results also failed to disclose a potassium-sparing effect, the sodium to potassium ratio being approximately 5 to 3 at the 10 mg. per day dose. Ratios of approximately 3 to 1 are seen with the other agents tested over a 48-hour period at similar therapeutic dose ranges.

Hydroflumethiazide exhibited sodium, potassium and chloride excreting tendencies at the 300 mg. per day dose range, which were of the magnitude produced by 150 mg. of dihydrochlorothiazide. The potassium-sparing effect was not observed as noted by other investigators.[3, 4] The sodium to potassium ratio was approximately 3 to 1. At the lower dose level (150 mg. daily) the sodium to potassium ratio was approximately 9 to 1. However, at this dose the natriuretic and chloruretic effect was only one-half that of the larger dose.

Chlorthalidone produced a significant prolongation of sodium, potassium and chloride excretion after a single 150 mg. dose as compared to chlorothiazide. The study failed to show a decrease in potassium excretion, as reported by Ford.[5] However, the study substantiated the use of a single daily dose of chlorthalidone.

In this study urine volume did not show an increase over control comparable in magnitude to that of electrolyte excretion. This result is expected because of the design of the experiment. Only nonedematous individuals were studied, and they were placed on moderate salt restriction. In contrast to edematous patients the urine volume of normal subjects will depend primarily on the fluid intake. For these reasons, changes in urine volume are poor criteria of drug effectiveness under the experimental conditions used in this study.

SUMMARY AND CONCLUSIONS

A comparative study was carried out of the saluretic effects of dihydrochlorothiazide, hydroflumethiazide and trichlormethiazide and of chlorthalidone as compared to chlorothiazide in nonedematous individuals. All agents were about equally effective in the doses tested except trichlormethiazide, which was less effective. None of the agents exhibited a potassium-sparing effect. Chlorthalidone had a more prolonged action than chlorothiazide when each was given in a single dose.

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Tumors of the Chromaffin System

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FUNCTIONING TUMORS arising from the adrenal medulla or the paravertebral sympathetic ganglia are designated as pheochromocytomas because of their staining characteristics by the chrome salts. It is unfortunate that this purely histologic term gives no indication of the fascinating clinical changes produced by these tumors nor any hint concerning the interesting physiologic, anatomic, or embryologic features of the organ system from which these tumors originate. However, like so many medical terms, pheochromocytoma is permanently established in medical usage. Even though the incidence of these tumors is not great, being in the vicinity of 1.3 per 100,000 hospital admissions,[1] they are of considerable importance since the hypertension produced by these lesions can be cured by surgical excision of the tumor. It has been estimated that about 800 people in the United States die from these tumors yearly,[1] many having been unrecognized clinically and having been found only at autopsy.

The medullary portion of the adrenal gland arises from the neural crest in common with the anlage of the sympathetic nerve cells. Hence, it is not suprising that tumors originating from the sympathetic nervous system and the adrenal medulla have similar histologic and physiologic features. Chromaffin tumors have also been found in the mediastinum, the neck, and the brain. Although the incidence of malignancy is only 10 per cent, functioning metastases have been described.

Grossly the tumors vary in weight from 10 to 2,000 grams. They are usually 1 to 10 cm. in diameter (figure 1).

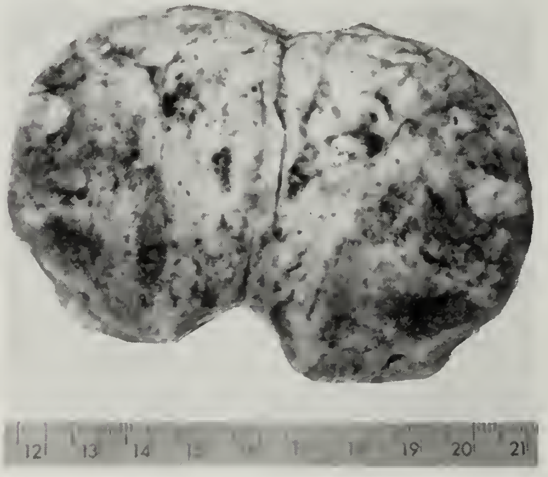

FIG. 1. Typical appearance of a pheochrome tumor removed from a patient having sustained hypertension.

Recent studies by Euler[2] and others[3] have shown that both adrenalin and noradrenalin are elaborated by the medulla, while only noradrenalin is produced by the sympathetic ganglia and that this difference apparently holds true for tumors arising from the 2 areas. By determining which of the substances is present in abundance, as measured in the urine or blood, it is possible to determine preoperatively whether the tumor is arising from the adrenal or is extra-adrenal in origin.

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CLINICAL FEATURES

Although a number of neurogenic adrenal tumors had been reported as incidental autopsy findings,[4] it was not until 1922 that Labbé, Tinel and Doumer[5] first described the clinical features associated with a functioning tumor of the adrenal medulla and verified their clinical impressions by finding at autopsy an orange-sized tumor of the left adrenal gland having the gross and microscopic findings of a typical pheochromocytoma. The patient, a 22-year-old woman, had crises of vomiting, hypertension, nervousness, malaise, numbness and vasoconstriction of the extremities, tachycardia, pounding of the heart, profuse perspiration, anxiety, and flushing of the face and neck. During the crises the fingers had a tremor resembling that of Graves' disease and there was mydriasis of the pupils. The patient was observed over a period of several months and finally developed pulmonary edema and dyspnea, dying in congestive heart failure during a severe attack. In 1927 Mayo[6] described the case of a 30-year-old woman complaining of intermittent attacks "characterized by the sudden onset of discomfort in the precordium, occipital headaches, generalized pallor, cold and clammy skin, and a peculiar choking sensation followed by nausea and vomiting." These attacks lasted from 30 minutes to 2 or 3 hours. It was noted that the attacks were accompanied by extremely high blood pressure and that they were attended by generalized vasospasm. The patient also complained of pain in the upper abdomen, and an exploratory operation was carried out in the belief that the symptoms might in some way be related to the sympathetic nervous system. At operation a 6 by 4 cm. spheroidal tumor was found in association with the left adrenal gland, and removal of the tumor resulted in permanent relief from the distressing symptom complex.

As in the 2 cases described by Labbé and by Mayo, patients usually present the symptoms of overdosage of epinephrine. In the order of frequency the symptoms are headache, palpitation, vomiting, sweating, dyspnea and pallor.[7] However, only 50 per cent of the cases have the most common symptom of headache and only 16 per cent the least common symptom of pallor. Typical attacks are associated with hypertension. However, as the condition progresses, the hypertension may become sustained in approximately one-third of the recorded cases, making it difficult to differentiate this lesion from essential hypertension.[8] Attacks may be brought on by emotional stress, compression of the tumor either by body position or pressure from without, or by physical effort.[9] The metabolic rate may be increased, and as noted by Labbé the symptoms may simulate and be confused with those of hyperthyroidism.[10] The patients may even respond to antithyroid medication, but protein-bound iodine and I^{131} uptake studies are normal. Not infrequently mild diabetes may be found.[9] On rare occasions patients who develop sudden collapse following minor trauma or surgery without any previous suggestive symptoms are found to have a pheochromocytoma,[11] and a careful search for these lesions should be made in such instances. In those cases presenting the classical symptom-complex the diagnosis is usually self-evident; however, the atypical cases may long go unrecognized, and there must be constant awareness of the different symptom-patterns if these patients are to be recognized and receive curative operative treatment. Pheochrome tumors appear with equal frequency in the sexes.[12] The incidence is highest from age 20 to 50 years, but cases have been described in all age groups. During recent years an increasing number of cases have been described in children.[13] In adults 90 per cent of the tumors arise from the adrenal medulla and 10 per cent from an extra-adrenal location.[14] In 10 per cent of the cases the lesions are bilateral and approximately 10 per cent of the tumors are malignant. In approximately one-third of the cases reported in childhood the tumors have been multiple.[7] Of considerable interest also is the fact that approximately 5 per cent of the reported cases have associated multiple neurofibromatosis.[15]

DIAGNOSIS

A high index of suspicion is the best diagnostic tool in cases of functioning tumors of the adrenal medulla and sympathetic system. In classical cases similar to those described by Labbé and by Mayo the history and physical examination are in themselves diagnostic. However, in many instances, particularly in those cases having sustained hypertension, it may be impossible to delineate cases of pheochromocytoma from those having hypertension due to other causes on the history and physical examination alone. During recent years much has been learned about the metabolism of the catechol amines, epinephrine and norepinephrine, and a number of practical diagnostic tests have been developed. These laboratory tests can be divided into 4 general categories as follows (table 1): (1) measurement of the substances elaborated by the tumor in the blood plasma or in the urine, (2) tests in which the production of epinephrine or norepinephrine is stimulated or in which the effects of increased circulating catechol amines may be neutralized, (3) localizing tests which may enable one to determine the location of the lesion prior to operative intervention, and (4) miscellaneous tests.

TABLE 1

Diagnostic Tests for Pheochromocytoma

Quantitative Catechol Amine Tests	Provocative and Blocking Tests	Localizing Tests	Miscellaneous
Assay Tests	Provocative Tests	Radiographic	
a. Biochemical Gitlow[17] and Armstrong[18]	a. Histamine[16]	a. Plain film	a. BMR
b. Fluorometric, Euler[19]	b. Mecholyl[20]	b. Intravenous pyelogram	b. I^{131} uptake
c. Colorimetric, Euler[21]	c. Etamon[22]	c. Retrograde pyelogram	c. Protein-bound iodine
d. Bioassay, Euler[21, 23, 24]		d. Aortography[25]	d. Glucose tolerance test
1. Hen's rectal cecum—epinephrine			
2. Cat's blood pressure—norepinephrine		e. Retroperitoneal pneumotography[26]	
Screening Tests	Blocking Tests	Bioassay, Euler[21, 23, 24]	
a. Rabbit's aorta (Helmer[27])	a. Regitine[28, 29]	a. Hen's rectal cecum—epinephrine	
b. Vanillylmandelic acid (VMA) (Gitlow[17] and Armstrong[18])	b. Benzodioxane[30, 31]	b. Cat's blood pressure—norepinephrine	
		Selective venous sampling[2]	
		a. Inferior vena cava	
		b. Superior vena cava, etc.	

Quantitative catechol amine tests. It is now well substantiated that the neurohormone elaborated by the sympathetic nervous system is norepinephrine and that the principal neurohormone of the adrenal medulla is epinephrine, although quantities of norepinephrine may also be produced by the adrenal medulla. These substances can be measured in the blood plasma and in the urine. They may be measured quantitatively by biochemical, fluorometric or colorimetric assay method, or by bioassay determinations which are based upon the fact that the cat's blood pressure is only sensitive to norepinephrine while the fowl's rectal cecum responds only to epinephrine. The execution and interpretation of these determinations is difficult and these studies are not readily available in most laboratories; thus, there is great need for a simple screening test which can be carried out in all hospital laboratories. One such test is that described by Helmer,[27] which is based upon the fact that the rabbit's aorta will contract when in contact with minute amounts of norepinephrine. Another screening test first described by Armstrong[18] and Gitlow[17] utilizes the metabolic breakdown of epinephrine and norepinephrine to vanillylmandelic acid (VMA), and this substance is measured in the urine by paper chromatography.

Provocative and blocking tests. In those patients without sustained hypertension, attacks may be provoked by the injection of substances such as histamine or Mecholyl. Since there is considerable hazard associated with such tests and the results are at best unreliable, there seems to be little indication for their continued use. The use of these provocative agents in cases with paroxysmal hypertension, with measurement of catechol amines in the blood and urine, is controversial. Reutter et al[32] have employed the provocative agents in cases with paroxysmal hypertension having normal catechol amines levels. Using histamine to provoke an attack of hypertension and then measuring the catechol amines a diagnosis may be confirmed.[15, 33] However, Goodall et al[3] state that in patients with pheochromocytoma with paroxysmal hypertension the catechol amines in the urine are always elevated and that during paroxysmal attacks the urinary level increases above the base level common to that particular patient. Regitine as well as Benzodioxane and other substances act as blocking agents to reduce the hypertension caused by pheochromocytomas (figure 2). Although both false positive and false negative tests have been reported with Regitine and no help is given concerning the possible location of the tumor, this is a relatively simple and safe test which can be performed without the aid of the laboratory and is a useful diagnostic tool.

Localizing tests. Various roentgenographic examinations may be helpful in determining the site of tumor. Plain films of the abdomen to show soft tissue detail and intravenous or retrograde pyelography to determine possible displacement of the kidney are associated with little hazard and may be helpful. Although retroperitoneal pneumotography is somewhat safer with the use of carbon dioxide, the hazards of this type of study in general outweigh any possible benefits. Likewise, there seems to be little indication for the use of aortography in such cases. As previously mentioned, selective determination of the epinephrine and norepinepherine excretion levels can be used to distinguish between tumors of adrenal origin and tumors arising in extra-adrenal sympathetic tissue. Another method of localization is the collection of blood samples from various levels of the vena cava through an indwelling venous catheter and determination of the epinephrine and norepinephrine content at various levels of the vena cava. This method was used in one patient at this hospital in which no tumor was found at the first exploration. Selective sampling of blood from the inferior vena cava through an indwelling catheter showed a sharp rise in the level of epinephrine when the catheter tip lay adjacent to the left renal vein. At a second operation a small pheo-

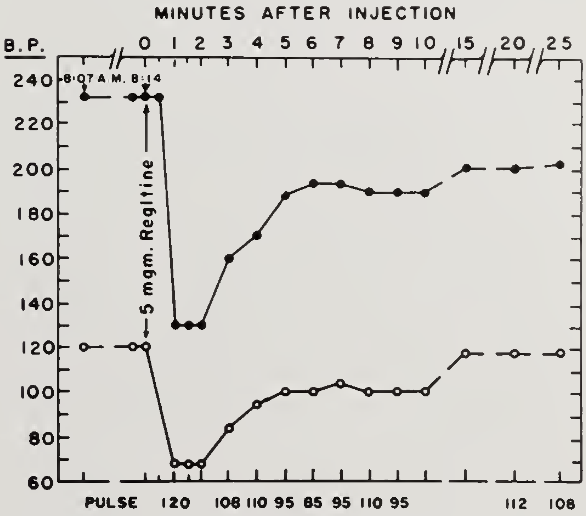

FIG. 2. Blood pressure changes following injection of 5 mg. of Regitine in a patient found to have a pheochrome tumor of the left adrenal gland at operation.

chromocytoma was removed from the left adrenal gland with resultant cure of the patient.

Miscellaneous tests. The basal metabolic rate is usually elevated in these patients; however, normal protein-bound iodine uptake levels can be used to differentiate between pheochromocytoma and hyperthyroidism. Approximately 10 per cent of patients have diabetes, and the glucose tolerance curve may be positive.

TREATMENT

The clinical syndrome associated with hyperfunction of the pheochrome system is produced only by tumor. This is unlike the syndrome of hyperfunction associated with the other endocrine systems in which the symptoms may be produced either by a tumor of the involved organ or by hyperplasia. Once the diagnosis is established, therefore, the only effective treatment is surgical extirpation of the offending tumor or tumors. In general we are not concerned with the problem of histologic malignancy, only 10 per cent of the reported tumors being histologically malignant, but these tumors are clinically malignant in that the physiologic changes produced by these lesions are progressive and will ultimately lead to death if the lesion is not removed. Sustained hypertension produced by pheochrome tumors can be controlled by the use of Regitine or Benzodioxane. However, this approach is not recommended because of increasing drug resistance requiring larger doses of the drug as well as the fact that when operation is done residual amounts of these agents may effectively block the pressor drugs, making it difficult to maintain an effective blood pressure following removal of the tumor.

The occurrence of peripheral collapse and death in patients with a previously unrecognized pheochrome tumor undergoing minor surgical procedures has already been noted. Therefore, the hazards which may be encountered when operating upon these patients should be kept clearly in mind by all members of the surgical team. During the induction phase of anesthesia, typical attacks of paroxysmal hypertension may be produced with resultant alarming cardiovascular alterations manifested by extremely high systolic blood pressure or by general collapse. The hypertension can usually be kept at a safe level by the use of one of the blocking agents, preferably Regitine because of its shorter action, whereas norepinephrine, epinephrine, or Neo-Synephrine may be used to support the blood pressure when peripheral collapse occurs. During the operative procedure, once the tumor has been identified, manipulation should be kept at a minimum and the lesion removed as gently as possible, since dangerously high blood pressures may result from an outpouring of epinephrine and norepinephrine into the circulation. Once the vascular supply of the tumor has been interrupted and the tumor removed the blood pressure may drop to an alarmingly low level. Indeed, if this does not occur one should strongly suspect the presence of an additional tumor elsewhere. This resultant shock picture caused by sudden withdrawal of the excessive output of pressor agents from the tumor does not respond to the infusion of whole blood but usually responds readily to the injection of norepinephrine or Neo-Synephrine. It may be necessary to provide vasopressor support for as long as 24 to 72 hours postoperatively. This can best be accomplished by the maintenance of a continuous drip of glucose in water containing a dilute pressor agent, the most effective of which is norepinephrine. In general, those patients who have had a sustained hypertension prior to operation require more support during the postoperative period than do those having intermittent hypertension.

The adrenals lie high in the retroperitoneal area, well protected by the overhanging thoracic cage, making their exposure somewhat difficult. Fortunately, most patients having pheochrome tumors are slender in contrast to those having hyperfunctioning lesions of the cortex. If it has been possible to localize the lesion with a fair degree of certainty prior to operation, the approach may be simplified. However, in general, a transabdominal approach usually through a transverse upper abdominal incision is preferred. This permits examination of both adrenal areas as well as exposure of the paravertebral sympathetic chain from which these tumors may arise. Exposure of the right adrenal gland can usually be obtained with moderate ease by downward and medial retraction of the hepatic flexure of the colon and upward retraction of the liver. Incision of the posterior peritoneum over the upper pole of the kidney usually brings the adrenal into view. On the left side exposure through the abdominal approach is somewhat more difficult and can usually best be made by dividing the gastrocolic omentum widely and reaching the region of the upper pole of the left kidney through the lesser omentum. Venous drainage of the left adrenal gland is principally through one large vein which empties into the left renal vein, while on the right there are a number of smaller veins which empty directly into the vena cava. Theoretically it should be possible to interrupt the venous drainage from the tumor prior to manipulation and avoid the hazards inherent to trauma to the tumor, especially on the left side, but we have not found this to be of any technical value in our experience.

Although vasopressor support must be maintained during the postoperative period in these patients, it is usually not necessary to give supplemental corticosteroid therapy, since there has been no alteration in steroid activity.[34]

SUMMARY

The incidence of chromaffin tumors is relatively low, being 1.3 per 100,000 hospital admissions. However, it represents a form of hypertension which is curable by extirpation of the tumor.

A keen awareness is the best diagnostic tool. The diagnosis usually can be made by a complete history and physical examination.

There are many additional diagnostic aids to confirm the diagnosis and to help in diagnosing cases that do not follow the typical clinical pattern.

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(*Continued on page 654*)

PRESIDENT'S PAGE

INTERNATIONAL RELATIONS

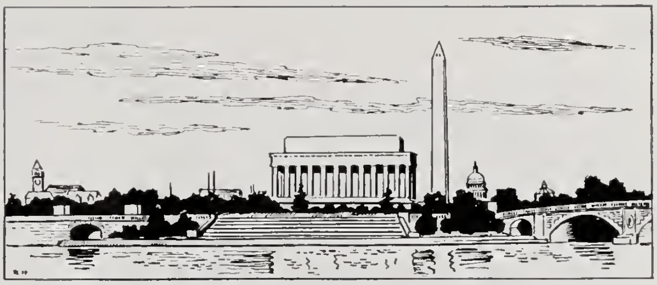
As this column is being written, the hospital ship *Hope* is heading west from San Francisco on its historic first voyage. At the same time, from every corner of the world the representatives of foreign nations, old and new, are convening in New York City for what may be the most momentous session of the United Nations. These two seemingly unrelated and coincidental happenings are, each in its way, the outward manifestations of man's growing efforts to promote the cause of peace and understanding among the nations of this earth.

The role which physicians can play in fostering friendship among peoples is epitomized by the successful launching of Project HOPE. Similarly, the efforts to contribute our medical skills among underprivileged people are reflected in the missionary work which the doctors of MEDICO have so unselfishly provided for the past several years. We can derive great pride and satisfaction in the distinguished role which members of our Medical Society are playing in these organizations. We owe our colleagues our deepest respect and admiration. And we owe them even more: our active financial support.

There are many other ways in which physicians can contribute toward better understanding among peoples, because our profession is dedicated to the service of all mankind, and we do not recognize any barriers of race, creed or national frontiers.

We are afforded many opportunities of exchanging scientific information through the various international health organizations. Meeting with our foreign colleagues at the various international congresses of the specialty groups creates further opportunities to get to know each other. Many of these meetings are held in Washington because of our Capital's unique status as both an outstanding medical center and an incomparable tourist attraction. Whenever possible we should also attend the meetings which are held in foreign countries. Many warm and long-lasting friendships originate in this manner. As we succeed in broadening the base of friendship among the people we cannot help but provide a more solid foundation which will support the loftiest structure of world peace.

Victor R. Alfaro.



EDITORIALS

MEDICAL EDUCATION IN THE VETERANS ADMINISTRATION

Charged with the medical care of the American veterans under mandate of the Congress, the Veterans Administration Department of Medicine and Surgery has accepted certain fundamental principles. In discharging this responsibility it behooves the agency to maintain its personnel at the highest level of efficiency. There can be no difference of opinion relative to the wisdom of, and indeed the necessity for, sustained organized education to attain and maintain this objective. The encouragement of attendance upon and participation in the meetings of national, regional and local medical societies becomes an obvious responsibility. The Department is jealous of its opportunities and responsibilities in this area. Furthermore, it recognizes its responsibility for the promulgation of medical knowledge by sustaining contributions to medical literature. However lofty such objectives may be, they will fall short of their target unless an organized effort be made to coördinate and project the educational effort.

In the larger medical centers there is every opportunity for self-advancement in the ultimate interest of patient care, but for the staffs of peripheral stations special provision must be made. Details of staff members in such stations to medical centers for the study of specific technics and subjects are encouraged. In addition to these expedients, the physician-in-residence program has been initiated. Under its provisions the coöperation of a carefully selected panel of physicians, surgeons and dentists has been enlisted. The design of the attendance of such outstanding professional men in the more removed Veterans Administration hospitals is to afford a continuing contact of 3 to 5 days for intimate professional interchange. Such physicians-, surgeons-, and dentists-in-residence conduct their professional duties in rounds, conferences, or occasional lectures as they would at their own hospitals. Physicians from the hospitals of the surrounding area may be detailed to the sponsoring hospital for the leavening influence of this experience. Furthermore, in many instances the opportunity to profit from the lectures and conferences is extended to physicians of the community at large. As a natural projection of this broad program outstanding teachers in the Veterans Administration system are utilized in the same relation on detailed duty from their home stations. The dividends to the individual physicians of the Veterans Administration and to the medical program as a whole have been material and will increase with the further evolution of the effort.

By common consent good medicine may be

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of the Medical Society of the District of Columbia

practiced by qualified physicians in any situation. Better medicine is practiced where the supporting facilities and technical co-professional support are adequate. The best medical service is rendered where these several factors are joined by sound programs of research and education. The architects of Public Law 293, 79th Congress, creating the Department of Medicine and Surgery, which became effective January 3, 1946, foresaw the impact of such forces on the quality of medical care for the American veteran. The Dean's Committee program was initiated in 2 medical centers, Chicago and Minneapolis, at approximately the same time. In the intervening 14 years this pattern of coöperation has extended to include 73 medical schools with advisory relationships to 96 Veterans Administration hospitals. At certain other stations removed from medical schools Medical Advisory Committees of representative physicians have been constituted to supervise educational programs. Singularly, this is not a formal contractual arrangement but a mutual understanding between the two interested parties. This plan has worked so effectively that when a review was conducted by Dr. John C. Nunemaker in 1958 there was not a single dissident vote as to the wisdom of its continuance. The Dean's Committee nominates staff members to the manager of the Veterans Administration Hospital, but the manager maintains the right of veto. Actually this prerogative is rarely exercised, since differences are settled before such issues are raised. Obviously, this scrutiny of staff candidates affords increased strength and stability to the basic functions of the hospital. A further element in affording stature to the hospital staff is its recognition in faculty appointments and participation in the educational activities of the medical school. Reciprocally the faculty members of the medical school lend immeasurable strength to the medical program of the Veterans Administration in consulting and attending capacities in its hospitals.

The residency program of the Veterans Administration is under the immediate supervision of the Dean's Committee. Candidates for residencies are screened by the chiefs of the respective departments of the medical school and are nominated to the Veterans Administration hospital manager after clearance by the Dean's Committee. A mutual agreement between the chairman of the medical school department and the chief of the corresponding service of the Veterans Administration hospital is essential to the implementation of this plan, since cross-servicing of the two elements of the program may be required in specific instances. Presently there are 21 specialties represented under the several patterns of balanced training in the system. From the constitution of the veteran population, deficiencies in female and pediatric clinical experiences must be met by appropriate arrangements with the participating medical schools. Under these terms various plans of integration, collaboration, and affiliation have evolved. Always the primary interest in education will assure to the resident a fulfillment of his basic requirements for admission to the Specialty Board examinations. The advice of the Dean's Committee conveys an assurance of the soundness of the program in a given instance, but a careful scrutiny by the Survey Committees of the specialty boards is welcomed when doubt exists. Certainly sacrifice of a young man in training by inadequacies of residency programs will not be condoned.

In certain areas of critical shortage of medical staffs career residency training has been established. At the present time these fields include anesthesiology, neurology, pathology, physical medicine, psychiatry, and radiology. Under the terms of this program full-time physicians under the career-residency schedule are afforded salaries at the staff level rather than the residency stipend. However, there is a compensatory period of obligated service of 2 years after the residency period is completed.

The experience of the Veterans Administration in its residency program has confirmed the preconception of its effective contribution to the quality of veteran care. The fine enthusiasm and the sustained performance of these recent graduates in medicine were anticipated. The stimulus of their participation in the medical program is the common experience wherever such activities are abroad. Aside from their active engagement in the clinical responsibilities of the several services these young men and women are a vital element in the medical team. Approximately 30 per cent of the residents are recruited to the Veterans Administration medical program in some capacity upon the completion of their training. The remainder (70 per cent) will contribute immeasurably to the improvement of American medicine in other positions of their choice. This imponderable contribution of the education program in the Veterans Administration has never been adequately publicized.

The utilization of the clinical facilities of the Veterans Administration hospital for undergraduate medical education was a natural outgrowth of this mutually advantageous experience in graduate medical education. At the present time over half of the graduates from the medical schools of this country will have spent some portion of their clinical clerkships in Veterans Administration hospitals. In many instances this supplemental outlet for clinical clerks has made possible the acceptance of larger classes for the clinical years by the medical schools. Out of the mutual respect gained by the years of coöperation has come a greater utilization of the staffs of the Veterans Administration hospitals as instructors in this educational enterprise.

The Dean's Committee program offers an unexpected dividend in event of national disaster. On the background of the mutual confidence gained through this effective coöperative endeavor there has been proposed a master plan for the utilization of the clinical facilities of the Veterans Administration in event of a national emergency. A pooling of all medical resources of the country is long overdue. With a clear-cut assignment of responsibilities it would be possible to relocate the clinical programs of certain medical schools in surviving hospitals of the Veterans Administration system with a minimum of readjustment in materiel and personnel. Since the requirements for such realignment in event of an all-out war would presuppose of the utilization of all medical resources of the country, the Veterans Administration Department of Medicine and Surgery is in a singularly strategic position to participate effectively in such a plan through the Public Health Service functioning as a delegate agency of the Office of Civil and Defense Mobilization.

William S. Middleton, M.D.
Chief Medical Director, Department of Medicine and Surgery, Veterans Administration

FIVE OUT OF SIX

For every 6 cases of symptom-free pelvic carcinoma found by doctors 5 women delayed more than 6 months after initial symptoms before seeking advice. This is one of the more striking facts found by the Cancer Morbidity Committee after a study of 326 staff cases in 8 hospitals in the District of Columbia from October, 1957 though August, 1960.

The work of the Committee is made possible by a yearly grant from the Cancer Society and the coöperation of the various hospitals in making records available. Private cases have been considered for the last several months, and the comparison as to early diagnosis and care will be interesting.

Meetings are held once a month at the Medical Society building, when the current cases are discussed as to delay in care, whether caused by the patient or the physician, and also as to adequacy of treatment.

Only in a few cases has the delay been on the part of the physician, but it is disappointing to read "no examination because of bleeding" or "given pills but no examination" or "treated with shots for months without examination." When an accurate history has been obtained the Committee invites those who may have given advice or treatment in the early stages to attend the Committee meeting.

Fear and ignorance lead many women to procrastinate until cancer is all too obvious. Many of these unfortunate women considered their unusual bleeding normal for the menopause; others disregarded irregular or unusual bleeding, which they excused as due to a "cold" or some emotional upset.

More than 6 months elapsed, after initial symptoms, before 44 of these women sought aid. With all the educational programs on cancer detection, how people could neglect themselves in such a fashion is difficult to understand.

Review of the adequacy of treatment of gynecologic malignancy following diagnosis has brought out a wide divergence of opinion as to the standard methods that should be used. The majority of these have been adequate, although the Committee believed that educational programs for physicians would lead to a better standardization of treatment of cancer.

Every doctor's office should be a cancer prevention clinic and should be used to teach all women to consider pelvic examination part of their routine checkup. The vaginal speculum remains the best cancer detector.

Stafford W. Hawken, M.D., *Chairman*
William P. McKelway, M.D., *Vice Chairman*
Cancer Morbidity Review Committee

1960 NICHOLS AWARD TO SERVICE GUILD

In 1953 the Medical Society of the District of Columbia created an award to be presented to the lay person or organization which had made the outstanding contribution to the health of the community during the year. The award was named in honor of John Benjamin Nichols, long an outstanding Washington physician. This was another way for the Society to demonstrate its interest in the health activities in Washington. The award established a genuine rapport between the people and individuals and organizations that work in the health field.

The award is now a tradition. The following list of recipients indicates the variety of health activities recognized.

The Variety Club of Washington, for large financial contributions to the improvement of health facilities in the District of Columbia—Children's Hospital the greatest beneficiary

Television Station WTOP-TV, Washington, D.C., in recognition of its pioneer efforts in health telecasts

Mrs. Henry Grattan Doyle, civic leader, whose devotion to the health of the people of the District of Columbia was widely recognized

Mr. Joseph Hendrix Himes, founder and first President of Group Hospitalization, Inc.

Junior League of Washington, Inc., which has consistently supported and assisted directly with personnel and finances in pioneering ventures in the community, such as the Department of Psychiatry at Children's Hospital and the Retarded Children's Clinic at Georgetown Hospital

Mrs. Harold N. Marsh, who has served many health organizations for more than 30 years in various capacities

The Lions Clubs of District 22-C, for the establishment and conduct of their Eye Bank and Research Foundation, Inc.

The 1960 award winner can rightfully take its place with this distinguished group of people and organizations. The Service Guild of Washington has a long association with the health problems of the District. Their very name of "Service" epitomizes their activities.

The Service Guild's hard-working members, young Jewish women who volunteer for social service, take their mission seriously. One of the keys to the Guild's successful program is its emphasis on special training for young volunteers so that they can perform difficult tasks with competence. The Guild's services thus reflect not only warm-heartedness but substantial and practical accomplishment.

The Service Guild has broad vision. Its services are non-sectarian and its range of activities wide, supporting more than 19 institutions and social agencies with both their time and their funds. Even a brief description of all their activities would be too extensive to cite here, but a few examples will be given.

The Guild's volunteers help teach special skills to emotionally disturbed or mentally retarded children, unwed mothers, and blind children; they bring cheer and render many special services to hospital patients; they work in the Red Cross Blood Bank; they provide lunches for needy children; they send underprivileged children to camp; they work on boards and committees of the United Givers Fund, the United Jewish Appeal, the Pilot School for the Blind, the Jewish Social Service Agency, the Health and Welfare Council of the National Capital Area, Children's House, the White House Conference on Children and Youth, and the forthcoming White House Conference on Aging. This is indeed an impressive list and is an indication of the dedication, motivation, and drive of this organization.

The Service Guild also understands that social service is hard work. Last year the 134 active members of the Guild performed 15,104 hours of volunteer work in the community, or 290 hours every week.

I am sure that Dr. John Benjamin Nichols would be proud to have the award named for him presented to the Service Guild of Washington in 1960.

Paul R. Wilner, M.D.
Chairman, Committee on Public Information and Education

EUROPEAN TOUR—M.D.'S LTD.

A European trip limited to members of the Medical Society of the District of Columbia and their families is being arranged. The overseas travel will be by Boeing 707 Jet. The tour will include London, Copenhagen, Lucerne, Venice, Florence, Rome, Madrid and Paris. The stay in Paris will coincide with the International Congress on Mental Health. Members may register and take advantage of the privileges of this convention.

All hotels will be first class, with twin-bedded rooms and private bath—air-conditioned in Venice, Rome and Madrid. A meeting with outstanding physicians in Rome and a fashion show in Paris are being planned. A comprehensive sightseeing program in the 6 European countries to be visited will be included. It is planned to leave New York on August 8, 1961 and return from Paris on September 1, but a later return date may be scheduled at the option of any member.

Dr. Lester Neuman is acting as coördinator between Air France and Travel Consultants, Inc. A detailed brochure will be mailed shortly to all members of the Medical Society. In the meantime, inquiries may be directed to Travel Consultants, Inc., 1612 K Street, N. W., telephone District 7-9228.

THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

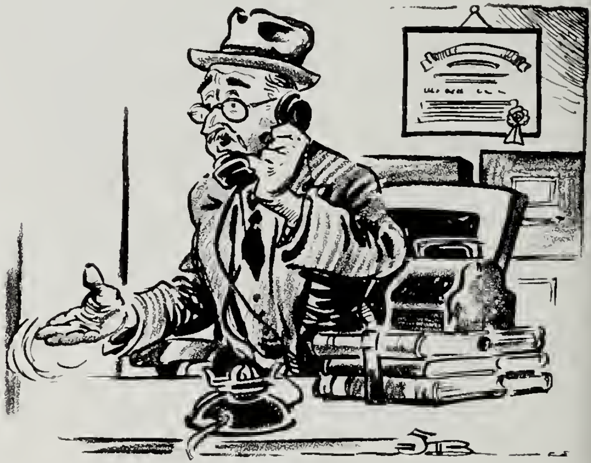
IN & OUT OF FOCUS

By the Observer

Time for Another Step

During the past two years an effort has been made by the Society's Committee on Postgraduate Education, with the coöperation of the three medical schools, to coördinate the scientific programs presented in Washington for practicing physicians. The objective has been to avoid duplication, conflict in dates, and to improve the programs. Progress made to date has been modest. The truth of the matter is that there has been an increasing number of educational programs sponsored not only by the Society itself but by medical schools and hospitals. All vie with each other for the interest of physicians in the hope of stimulating large attendance.

Generally speaking, the Society has fared fairly well with its programs because of the excellent judgment shown by the Committee in selecting program material and speakers. As shown in the Annual Reports (see October issue of the MEDICAL ANNALS, pages 575–581), the NINTH MIDWINTER SEMINAR was moderately successful, there being an average attendance of 175. The same could not be said for the Clinicopathological Conferences, but there were extenuating circumstances which accounted for poor attendance. The 28th ANNUAL SCIENTIFIC ASSEMBLY was not under the direction of this Committee but was, nevertheless, a part of the Society's educational program. The ASSEMBLY was an unusually successful meeting from any point of view, largely because of the excellence of its scientific presentations.



"But, Mrs. Payne, this is a school day. . . . Try an aspirin and some fruit juice!"

Just before going to press with the November issue of the MEDICAL ANNALS, it was learned that the success of the Postgraduate Lectures in the Basic Sciences is assured. As this was written, more than 200 had enrolled. Dr. Seymour Alpert and his associates on the Committee are to be congratulated on the results of their efforts this past year. Incidentally, the Committee is composed of representatives of District medical schools and hospitals who have, generally speaking, been very faithful in their attendance at meetings. More important, they have given generously of their time and thought to the projects undertaken. Deserving of special mention are Dr. Thomas W. Mattingly, who was responsible for the Seminar program, and Dr. Roy E. Ritts, under whose direction plans were completed for the Basic Science Lectures.

Praiseworthy as these accomplishments are, efforts to coördinate the scientific programs offered by medical schools and hospitals for physicians in practice need to be stepped up if scientific programs in Washington are not to bog down. Doctors can only respond to so many demands upon their time. It seems to your Observer that it is high time that the various institutions and organizations face up to the realities of this situation.

The natural role of our Society is that of coördinator. Not all programs can be presented in the Society's building, desirable as this might be from the standpoint of the membership. However, a mutual assistance arrangement under which all programs would be jointly sponsored can and should be developed as soon as possible. Only when this objective has been attained will the postgraduate program in the district of Columbia become as effective as it should be.

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A Public Service

For many years Active and Life members of the Medical Society have been classified according to type of practice under prescribed rules. For the benefit of readers not familiar with them, they are as follows:

1. To be classified as a specialist, a physician must be recognized as such by a Class A hospital or by a group of specialists or special societies approved by the Classification Committee.
2. Each physician appearing on the list of specialists will be required to state his qualifications.
3. Physicians claiming a specialty must limit themselves (80 per cent) to a single field; however, they may claim a subspecialty.
4. Qualifications of physicians claiming specialties will be investigated by members of the Committee in their respective fields. Where there is a Section of the Society in the specialty, the qualifications of the applicant must be reviewed by the Section before approval is granted.
5. The classification list will be submitted annually to the Executive Board for its approval.
6. Every newly elected member of the Society shall be given a classification form and instructed to fill it out immediately.
7. Every 3 years all members of the Society will be requested to state whether they wish to make any change in their classification.

Some changes have been made in the above procedure. Most important has been the revision of the application for membership form on which there is now a space for the applicant to state his specialty and his qualifications, which must be supported by the Chairman of the Section of the Society in his field, or, if there is no Section, the member of the Classification Committee in his specialty. Thus, when a physician is elected to membership, his qualifications have been definitely determined.

Officers of the Society have been under the impression that few county medical societies classify their members as to type of practice in accordance with rules as rigid as those in effect in the District. (The District Medical Society functions as both a state and county medical society.) In an effort to ascertain the facts, a letter was directed to 202 county medical societies. Seventy-nine replies were received from county societies in 28 states with the following results:

46 societies replied that they permitted self-classification by their members.
5 have relied upon a directory of specialists, which only lists those who have passed their specialty boards

10, all situated in the state of New York, stated that the classification used by them is done primarily for Workmen's Compensation purposes. (In explaining the procedure by which this is done, one county society reported that "in New York State all physicians may participate in the treatment of injured workers entitled to Workmen's Compensation benefits, the only requirement being that the physician must make formal application to the Workmen's Compensation Committee of his county medical society for authorization to treat such cases. The authorization conferred on him by the county medical society specifies the type of medical care the physician is qualified and authorized to render and, in so far as Workmen's Compensation practice is concerned, the physician cannot treat beyond the scope of his authorization.")

SPECIALIST
J.B.

"A broken LEFT leg? No, no! . . . I'm strictly a Right Side man!"

13 replied that they classify their physicians as to type of practice in accordance with rules determined by their governing bodies.

9 did not classify their physicians.

Several comments were included in the replies, of which the following were of special interest:

Westchester County Medical Society, New York: "In this day of self-diagnosis most people have at least a general idea of the type of specialist they need and would resent being referred back to their general practitioner. When there is some doubt as to the type of specialist required, our operator refers the call to another member of the staff, who makes inquiry concerning the condition to be treated and then advises them in regard to the type of specialist needed."

Academy of Medicine, Toledo and Lucas County, Ohio: "We have carried on a campaign for many years urging every family or person to have a family or personal physician. Most of our requests are taken care of by giving several names of general practitioners in their area. It is our thinking and experience that in most situations the patient is not qualified to select the proper type of specialist (except ophthalmologists and OB men)."

It has been the opinion of our Society, as reflected by its action in approving rules governing classification, that it is the responsibility of medical societies to provide the public with reliable information as to the qualifications of its members. In large cities such as Washington patients have no way of determining a physician's qualifications unless the Medical Society assumes the responsibility.

As is well known, the Society's classified list is made available to its telephone exchange, MEDICAL BUREAU. Hundreds of calls are received by the BUREAU each year for the names of physicians engaged in the various specialties and general practice. When callers request the names of specialists, they are asked if they have a family physician. Is so, they are urged to seek his advice in regard to the specialist they should see; if not, 3 names of specialists are given, the names being rotated.

This, in your Observer's opinion, is a real public service. In his view, every county medical society is obligated to see to it that such information is available. To do less, it seems, is to have failed in their responsibilities to the public.

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Public Image of the Doctor

The recent AMA-sponsored Public Relations Institute held in Chicago was devoted to the favorable and unfavorable images of the physician and how the latter could be improved. The "keynote" speaker was Pierre

Martineau, Director of Research and Marketing for the *Chicago Tribune*. Mr. Martineau declared that "the public image of the doctor and the American Medical Association will play a key role in the future course of political and public behavior involving the medical profession."

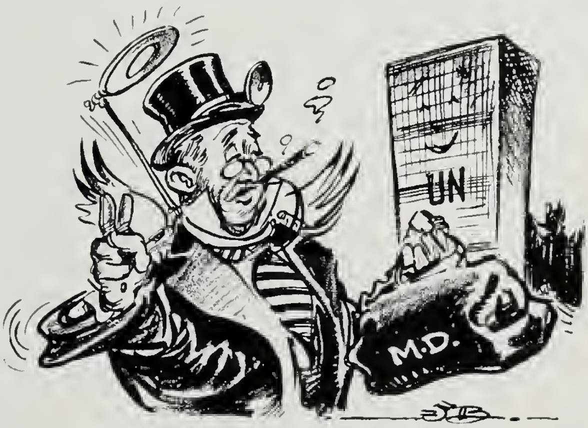
> "Every brand that is well known at all is defined in the public mind partly by what it is but also, very importantly, by sets of psychological associations which may or may not be true. These persist almost like a halo attached to the product. Both of these constitute the brand image and it is this image that people react to. All of our stimuli from the outside are filtered through the images that we have of a particular situation.
>
> "Images are formed partly by experience but mostly by word of mouth, and once they are formed they become stereotypes that are extremely difficult to alter. . . ."

Another speaker, Dr. Russell Roth, of Erie, Pa., and a member of the AMA's Council on Medical Service, said the doctor "particularly resents the charge of money-mindedness as he compares his hourly income with that of plumbers and bricklayers." He said that "in the gallery of images in the community the doctor shines a little more brightly than others."

Approaching the subject more philosophically, Mr. James E. Bryan, of Stamford, Conn., now consultant in medical administration, prepayment and public relations, and for a number of years associated with medical associations in an administrative capacity, questioned whether "this agonizing concern with our images" was not an "escape device by which we can avoid examining the reality of ourselves." If such is the case, he stated, "we're likely to be in deep trouble." The chief reason why the popular image of the physician was tarnished, he observed, was his "remoteness" and the lack of personal involvement between him and his patients. The average physician, he said, has lost some of the art of medicine and that there is "a profound conflict between the profession's social outlook and the popular ideologies of our day."

Editor Robert D. Potter of *New York Medicine* is one of the thoughtful observers of the medical scene. Mr. Potter has had the advantage of long experience as a science writer and therefore is more familiar with medical problems than many of his associates who are not physicians. In a recent issue of his publication[1] he editorialized as follows:

> "The greatest trouble with the image of medicine, as held by the public, is its multiplicity. There is, for example, the personal and individual image of a doctor by a patient after he has received good medical care and is cured of his illness and is grateful to the physician or surgeon who accomplished this 'miracle.' It seldom is a miracle, but because it happened to him the patient thinks it is and he is grateful.



A cured patient pictures his doctor as a Goodwill Ambassador with a Little Black Bag.

> "In the opposite manner, and in the great minority, is the image a patient may have when all has not gone well or if the fees seem excessive. Be it said that on the whole the personalized image of individual patients for their individual doctors is very good."

But Mr. Potter said there are many other images of medicine.

> "One is created in part by the emphasis on the concentrated reporting on new medical discoveries in the press. Here one builds the image of a dedicated, white-coated medical scientist working in his laboratory who wins, or is about to win, the Nobel Prize and who, of course, never charges fees to patients. Or the image may move over into the Lowell Thomas travelogue kind of

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[1] New York Med., 1960, **16**, 711.

> picture; the dramatic Dr. Dooley far off in the wilds of Indonesia or a Dr. Schweitzer in darkest Africa. This is the fairy-tale, romantic kind of image of medical missionaries that makes wonderful motion pictures and TV programs, but has no real relationship with the day-by-day practice of medicine in the United States. Certainly it has no relation to present-day socioeconomics of medicine in our Nation."

Turning his attention to spokesmen for medicine, Mr. Potter wrote:

> "Any physician can speak *on or about* medical matters as an individual but very few physicians can speak *for* medicine. This is an important distinction which the public usually overlooks. In the public mind both men are doctors with M.D.s and clinically they are both good doctors. Therefore, says the public erroneously, they are both equal and what they say has equal importance. This is not true and this is where the organization of medicine comes in.
>
> "The president of a medical society or other organized unit of medicine has a very special role in his one year of office. He silences his own personal opinions and he speaks only on matters which have been considered, studied and endorsed by his peers in their medical society. These policy decisions have been arrived at by the representative democracy which is the profession of medicine in this Nation. These policy decisions can only be attained in a meeting of physicians which operates, like Congress, under parliamentary procedure where all can be heard and the minority opinion is protected, but where, in the end, the vote of the majority shall rule.
>
> "Such meetings take organization and this is why medicine is organized. It has been wisely said that the only thing worse than organized medicine would be disorganized medicine. Indeed if the public has a multiplicity of images about medicine today it is caused, in part, by the multiplicity of 'spokesmen' who speak only for themselves or for some small pressure group within or outside the profession as a whole."

In your Observer's view organized medicine has perhaps unintentionally contributed to an unfavorable image of the doctor. Too often its approach has been negative when its position should have been one of agreement with objectives but not necessarily with the manner of their implementation.

As has been stated in this column on a number of occasions, there is nothing which will improve the image of the profession more than constructive efforts on behalf of the health of the people of a community. These must have tangible results; otherwise they become merely a gesture of good will.

Above all, the doctor's role in cementing good relations with the public is most important. He is in the front lines of medicine. What he does in his relations with patients has more to do with the image the public has of his profession than anything else.

* * *

"Inner Fraternity"

The medical profession is severely taken to task for its alleged sins of commission and omission in an article, "The Politics of Medicine" by Edward T. Chase, appearing in the October 1960 issue of *Harper's Magazine.* Few writers on this subject have been more harsh in their criticism of physicians than Mr. Chase.

It is axiomatic that extremists serve a useful purpose. At the very least they arouse strong emotions in those who hold opposite views. If this was his objective, Mr. Chase should succeed. Your Observer suspects that even the "new kind of doctor" among his readers on whom he pins his hope for a better future will not go the whole way with him.

Mr. Chase is most critical of what he considers the stultifying influence of the "inner fraternity" in the medical profession on medical education, the economics of medicine, and experiments in providing medical care. He compares medical societies of today with the guilds of ancient Greece. Of them he says: "These guilds of antiquity looked after the professional and economic interests of medicine. This remains the prime purpose of their successors, the medical societies. One of their chief concerns, as with business trade associations, is to help the membership make money, substantial money.

"The modern guilds are run by the top practitioners—in income and prestige—in each community. Like their Greek forebears they have seen to it that there are not too many doctors and that those who are admitted to the fraternity abide by the rules. In theory this is not a sinister function—it is fitting and necessary that those of highest competence set and maintain professional standards. But in practice the system controls a good deal more than medical excellence."

Many are better qualified than your Observer to evaluate the validity of much of the criticism which Mr. Chase levels at the medical profession. In one respect, however, he feels himself properly qualified. For nearly 30 years he has been an officer of a medical society, during which he has observed firsthand the inner workings of organized medicine—county, state and national. In his opinion, Mr. Chase is on thin ice when he generalizes as follows:

> "As he works his way upward, the doctor with political interests will have his reliability tested by appointment to various committees of his county society. In due course, if he proves himself, he may sit on its governing body. From the ranks of this august and dependable group the county society chooses its presidents, in a succession tidily arranged for several years in advance. The progression upward to the state society is automatic for those with time and taste for the medical organization life. The doctor who scales these heights is well schooled in the political and economic orientation of his colleagues. Doubtless he has served on his county's 2 most important committees, legislation and public relations. He has been well insulated from any dissenting viewpoints, for his associates—in the hospital, in the professional building, and at the country club—are almost entirely fellow members of the same 'inner fraternity.' He is ready now to contribute his own wisdom—too often a peculiar brand of bumbling provincialism—to the supreme guild of his profession: The American Medical Association.
>
> "One hundred seventy-eight thousand—or about 80 per cent of the Nation's practicing physicians—are members of the AMA's 1,911 county and district societies and its 53 state and territorial associations. The AMA is the largest medical organization and perhaps the most powerful trade association in the world. Membership at the county level is virtually compulsory, for otherwise the doctor's license to practice is inconsequential. Without it he is unlikely to get staff privileges at most hospitals. As a result he may even have trouble in gaining the approval of the governing boards which pass on the qualifications of specialists. In his day-to-day work, too, he is dependent on his county society for many services—such as the battery of seasoned attorneys and experts it commands to defend its members in malpractice suits (a growing menace among today's litigious patients); the 'grievance committee' which contrives to keep a good many customers' complaints out of court; its amiable intervention when police officers are overzealous in distributing parking tickets to doctors' cars. And for his dues he also becomes a subscriber to the chief professional journals. A large proportion of doctors, however, stay away from their societies' meetings and conventions in droves. They trust their leaders, and with sound reason: These have shown, over the years, an unshakable belief that what's good for the doctor—financially—is good for the country."

At another point in his article Mr. Chase credits Mr. John Steinle, consultant to the New York State Legislative Committee on Health Insurance, with the opinion that "the doctor may be a learned man in his own field. But in general knowledge he is the worst-educated of our professional men. This widely-noted deficiency stems in part from his narrow training in the natural sciences and the all-absorbing nature of his work. Eternally busy with individuals and their private troubles, he seldom participates in civic problems. Nor does he have time to read much more than medical journals—a uniquely unenlightening brand of literature in social, economic, and political affairs. There are many publications, of course, which stick to the job of communicating scientific information. But those that discuss political and economic matters (whether sponsored by medical societies or by the pharmaceutical houses, which need the AMA's blessing to sell their wares) are consistently AMA propaganda media."

There is no one in organized medicine who is not aware of its shortcomings and the mistakes which can be laid at its door. Certainly those responsible for the conduct of the District Medical Society would be the first to admit this has been true of their organization. But this can be said of most organizations, professional or nonprofessional.

On the basis of his experience with the District Society, which now spans more than 22 years, his knowledge of similar groups, and the AMA itself, your Observer wishes to take issue with some of Mr. Chase's conclusions. First of all, the manner in which county and state medical societies over the country deal with the problems confronting them varies considerably. They are not bound by the policies of the AMA; in fact, all of them are autonomous. Some take a narrow view of the current controversial issues and deal with them in a way our Society would consider unwise. Others are more liberal in their outlook, which is reflected in their policies. The majority go along with the decisions of the AMA's House of Delegates, organized medicine's policy-making body, in which all state medical societies are represented, although a number of them do so with reservations. Some strongly disagree with the AMA and go their own way.

Far from seeking physicians with "political interest" to serve on committees, our Society endeavors to get those who will contribute something to the organization to accept appointments. Such committeemen are difficult to come by. They may or may not progress upward in the organization as Mr. Chase states. Those who are familiar with the conduct of our Society can cite a number of instances where faithful and efficient service on committees was not rewarded by election to high office. The opportunity to scale the heights or to belong to the so-called inner fraternity never comes to them even though they are eligible, interested and worthy to be honored by their colleagues. This is often regrettable because of their demonstrated capabilities.

As our members know, Presidents of the District Society are not selected from a governing board. They become members of the Executive Board when they have served their term as President, thus making available to the organization the valuable experience which they have had. In addition, there is no automatic progression from one office to another.

Mr. Chase would be hard put to come up with a more democratic method of nominating officers of the Society than exists in the District of Columbia. He is perhaps not interested, but the fact remains that there is no interference with the deliberations of the nominating committee on the part of officers of the Society or anyone else. Members of the committee are completely free to exercise their own judgment, which they do.

Mr. Chase's reference to "bumbling provincialism," although unkindly stated, has some merit where the economic and social problems of medicine are concerned. Too few physicians are informed in such matters. However, they are not so naïve they can be led around by their leaders like sheep. The statement that membership at the "county level" is compulsory is, of course, an exaggeration. Hospital privileges are often predicated on medical society membership but no such requirement is imposed on the hospitals by the District Society. The comment with respect to grievance committees is, at least in the instance of our organization, entirely unwarranted.

In the beginning of his article Mr. Chase makes much of the situation which he states exists in New York's Staten Island. This he submits as an example of the narrow-mindedness of organized medicine where experiments in the provision of medical care are concerned. But Staten Island is not the District of Columbia of the past two decades nor does it apply to many other parts of this country.

Despite Mr. Chase's bias against the medical profession, his article contains some criticism which is valid, and therefore it merits reading by physicians if they can keep their tempers in check.

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Presidents in Retrospect

It isn't often in his busy day that your Observer has the opportunity to reflect upon the past. However, two incidents have occurred in the past month which were responsible for a train of thought which led to these observations.

The first was the mailing to the membership of the "ballots" on which were listed nominees for the Nominating Committee. This was a forceful reminder of how time had flown and that soon again another president would take office.

The other occurred when a Washington physician whom he had known for a long time came to his office. While your Observer was engaged in a conversation on the telephone, the physician walked about looking at the photographs on the wall. He was particularly interested in the portraits of the Past Presidents of the Society. His comments stirred many memories which had long been dormant in your Observer's mind.

The impression of the Presidents with whom he has served which stands out above all others is the high regard in which they were held by their fellow physicians. Naturally, they differed in interests and talents, but they were without question the popular choice for the highest office in the Society.

As your Observer surveyed the photographs inscribed to him by 21 Presidents, he recalled the characteristics of each with which he had become so familiar. There was the President who held office early in your Observer's association with the Society. Courtly of manner, he was the epitome of the Virginia gentleman. The stories which he related with such evident pleasure to himself as well as to his listeners were gently humorous and never in poor taste.

He was succeeded by another gentleman whose popularity with the profession in Washington has never waned. He deeply appreciated the honor of being President but was never reconciled to the problems encountered in organization work. He was more than content at the year's end to be relieved of his duties.

Turbulent years followed, with the Society involved in legal difficulties. Fortunately, the President who held office at the height of the controversy found his role in the organization tremendously stimulating. He proved himself the right man at the right time in the right place and met problems confronting him with equanimity and zest. Many years later he told your Observer that his term as President of the Society was the high point of his career, although he had distinguished himself as a practicing physician and educator.

During World War II heavy burdens were placed on the Society and its Presidents, to which each contributed his special talents. Space does not permit cataloguing them here. Some day your Observer hopes to do justice by each of them and their contributions. However, it should be said that without exception each was unselfish and dedicated to furthering the best interests of the organization of which he was the head.

Your Observer cannot recall a single instance when a President asked special favors for himself or his friends in the profession. All of them dealt objectively with problems involving the Society and usually without regard to the effect on themselves of decisions reached.

Meetings, dinners, luncheons, and other functions sometimes wore them down, but like good soldiers they performed their duties with little complaint. Most were conscious of the distinction which had come to them. Several would have gladly continued in office for another year.

What of their shortcomings? They, of course, had their share. At times some were garrulous, others dogmatic and unyielding in their views. The important fact remains, however, that all were men of integrity and determined to give a good account of themselves. It is no exaggeration to say that they would stand out in any company.

T. W.

Doctor! Please Remember . . .

CURABLE EARLY CANCER OF THE LUNG CAN BE DETECTED BY X-RAY

EVERYONE OVER 40
SHOULD HAVE A CHEST X-RAY
ONCE A YEAR

Martha Bailey

ALL MALE SMOKERS
SHOULD HAVE A CHEST X-RAY
EVERY SIX MONTHS

KEEP IN MIND THE INDICATIONS FOR BRONCHOSCOPY, WHICH IS *NOT* A FORMIDABLE PROCEDURE IN COMPETENT HANDS.

Physicians are invited to utilize the American Cancer Society films, "Cancer of Lung" and "Lung Cancer, the Problem of Early Diagnosis." A monograph, "Cancer of the Lung," and various materials on smoking and lung cancer are available.

Call or Write:
American Cancer Society, District of Columbia
Division, 810 18th Street, N.W., Washington 6, D. C.
EXecutive 3-3690

INSURANCE COMPANIES INTERPRET THEIR POLICIES*

WILLIAM J. McAULIFFE, JR.

Attorney, Law Department, American Medical Association

Perhaps the most frequently asked question by physicians is, "How much [malpractice] insurance should I carry?" And, as you know, this is a question that cannot be answered specifically, for every physician must decide for himself on the limits of coverage he will carry. Yet, we can give the physician some guides as to the limits. We can tell him that he should consider the size of judgments and settlements in medical professional liability claims and suits and other personal injury cases in his area, and he should consider his economic circumstances and his family responsibilities.

But have you ever received a question concerning the extent of coverage or the exclusions in a particular physician's medical professional liability insurance policy? Perhaps you have. And maybe you have answered the question by stating, "Well, this is a matter that the insurance carrier should answer." And this is a proper answer. But in the main, very few physicians inquire about the extent of coverage that is contained in their policy. The physician, like many of us with our automobile liability insurance policies, never bothers to read the terms and conditions of his policy, never inquires as to its limitation of coverage. Once he obtains his policy he sits back, confident that he is adequately covered. Then one day he receives a summons. Yes, he is concerned. This concern turns to panic when he learns that his carrier has some doubts about coverage in his case.

Many of us have wondered how the various carriers would interpret their policies if the insured were charged with, well, let's say, a criminal act or an unauthorized act or operation or assault. A little over a year ago Bernard Hirsh of the AMA's Law Department sent a questionnaire to 35 insurers in the United States and received some 22 replies from carriers who, I believe, write about 80 per cent of the medical professional liability insurance in this country.

The results of this survey are most interesting, for they give us an insight not only of the policy provisions but also the underwriting philosophy of these companies. I shall take some time reviewing the information which has been obtained as a result of that survey.

Criminal Acts

Does the medical professional liability policy provide coverage if the insured is charged with personal restraint and false imprisonment? Six of the 22 carriers replying to our questionnaire said "Yes" without qualification regarding coverage. But 16 carriers qualified their coverage in some manner. For instance, one stated that "If the insured's report, our investigation or the allegations of the complaint disclosed a criminal act no insurance thereof would be provided by the policy."

Another stated, "We would normally expect to defend an insured accused of a criminal act if he denies it. Until the contrary is proven or admitted, we would not expect to pay a judgment which was founded upon the performance of a criminal act by the insured."

And still another said, "The determining factor would be whether in fact a criminal act is involved. In drafting this particular policy provision, the criminal act exclusion was included as a protective measure to exclude those acts which clearly go beyond the border of good professional conduct. It was not the intention that the exclusion would be literally and technically applied but that it would be used in those cases where it seemed necessary and proper to do so."

Assault and Battery

We asked each carrier if coverage would be provided if the insured went beyond the consent given by the patient and was, subsequently, charged with assault and battery. Twelve of the 22 companies responded that they would defend the physician and pay the judgment. The others generally did not refuse coverage but qualified their position with such statements as:

"In such cases it would be our policy to defend our insured but to reserve our rights under the policy should our insured be found guilty by a duly authorized court of having performed a criminal act. If the insured's report, our investigation or the allegations of the complaint disclosed a criminal act, no insurance thereof would be provided by the policy."

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*Address before the Legal Conference for Medical Society Representatives, sponsored by the Legal and Socio-Economic Division of the American Medical Association in Chicago, Illinois, May 20 and 21, 1960.

Unauthorized Surgery

There are a number of instances of malpractice claims and suits where the surgeon has received consent for one operation but has performed, at the same time, another operation which he assumed the patient would have consented to if he had had the opportunity. A poor result follows. The patient sees his attorney and the attorney decides to proceed not on the theory of negligence but rather on the theory that the surgeon has performed an unauthorized operation. Liability usually follows. That is why we advise the surgeon that he should not perform the second operation without the consent of the patient in the absence of an emergency.

Undue Familiarity

Is the physician covered under his malpractice policy if he is charged with undue familiarity? Seven of the 22 companies responding to our survey said that they would defend and they would pay the judgment. Eleven companies indicated that they would defend if they were convinced that the allegations were untrue, but they would not pay any judgment that might result. One company said that they would defend unless the doctor was convicted in a criminal prosecution. Another said that they would defend if the doctor denied the allegations, but whether they would pay any judgment would depend upon the facts developed during the trial. Another said that if the acts constitute a crime, the suit would not be covered. And another stated that there would be coverage if the undue familiarity consisted of certain acts considered normal in performing the examination of a female patient.

We know that there have been many claims alleging familiarity on the part of the physician, and these claims are frequently no more than extortion threats. Therefore physicians should be continually cautioned to avoid examining female patients unless a third person such as a nurse is present.

Illegal Abortion

Is there coverage provided under the standard policy when the physician is charged with an illegal abortion?

Only one of the 22 companies interpreted its liability to cover both defense and any judgment. Twelve carriers said that they would defend but they would not pay any judgment. Seven carriers defend only if they believe that the physician has not committed a criminal act, but indicated they would not be liable to provide coverage against any judgment that might be rendered. And 2 companies would neither defend the physician nor pay any judgment inasmuch as a criminal act was alleged and such actions, they said, are not covered by the policy.

Sterilization Operations

In some states we know that nontherapeutic sterilization operations are frequent. Sometimes these operations are performed on the wife, sometimes on the husband. Are physicians generally covered under their medical professional liability policy when they are charged with malpractice stemming from such operations? Eight carriers of 22 interpreted their liability as covering both defense and payment under these conditions. The other companies generally stated that they would provide coverage only "if sterilization is not a criminal act."

Artificial Insemination

Is a physician covered under his policy when he is charged with injuries resulting from an attempt to artificially inseminate a patient?

Seven of the 22 carriers stated they would both defend and pay any judgment. Fifteen other respondents stated that coverage would depend on such qualifications as "whether artificial insemination is a criminal act or against public policy," or whether "artificial insemination was deemed the rendering of professional service."

Guarantee of Results

The standard professional liability insurance policy expressly excludes claims based on a guarantee of results. What do the carriers do when their insured is charged with guaranteeing a favorable result? Eleven of the 22 carriers would deny coverage, and therefore would neither defend nor pay any judgment. Nine companies indicated that they would defend the doctor if he denied the guarantee or if their investigation did not support the allegation, but they would not pay a judgment based on an alleged guarantee of results. The companies, however, would both defend and pay on behalf of a doctor who unsuccessfully denied an alleged guarantee of result.

There have been an increasing number of suits charging reputable physicians with guaranteeing a good result. It seems to me that physicians must be very cautious about the legal consequences of such an act. A physician must be very careful of his words of encouragement to the patient lest they be construed by the patient and later by the court as a guarantee of a favorable result.

Drugs and Alcohol

What about the physician who performs a procedure while somewhat under the influence of a drug such as a barbiturate? Will he be covered if he is later sued for malpractice for acts he committed while under the influence of this drug? Four of the 22 carriers said that their insured would not be covered. Two would defend but were uncertain as to whether they would pay any judgment. Three said that the degree to which the doctor was under the influence of barbiturates would determine their decision regarding coverage. Thirteen acknowledged coverage as to both defense and payment.

Now I think that this is important because the standard malpractice policy excludes claims arising out of services rendered while under the influence of intoxicants or narcotics. But most of the carriers indicated that they would not interpret this exclusion literally but would apply it against the physician who is a drug addict or who committed malpractice while under the influence of his addiction.

It was only natural that we followed this question with a question relating to the doctor who is under the influence of alcohol. Six carriers said that they would cover a doctor who had performed an act while under the influence of or who had been affected by alcohol at the time he performed the particular act. The remaining companies said that they would be willing to defend the doctor, but expressed either doubt or refusal to pay any judgment.

Limited Coverage

Is a physician covered who holds a policy which states that he does not perform surgery, but who later does perform an appendectomy and a bad result follows, and he is subsequently sued? All 22 of the carriers indicated that they would cover the doctor under such circumstances.

Physical Injuries and Libel

We put the following question to all of the carriers. We said, "Assume that Dr. 'A', while performing an operation, accidentally permitted an instrument to slip, thereby causing a severe injury to his assistant. Is there coverage?" Seventeen of the 22 carriers said that this type of claim would be covered. One company thought that coverage was questionable. And one would provide only defense. Three would deny coverage.

I believe it is significant that while the specific language of the professional liability insurance policy is not limited to injuries sustained by patients, a few insurers would apparently read such a limitation into the policy.

The usual policy provides coverage for "injury arising out of malpractice, error or mistake in rendering or failing to render the professional services." Do carriers provide coverage when libel is charged? Thus, is a doctor covered if he gives an employer information which he has obtained concerning the employee during a physical examination? All of the carriers acknowledged coverage with the exception of one which would defend the doctor but would not pay any judgment. Thus, although the standard policy refers to coverage for "injury" arising out of the performance of professional service, there does not seem to be any question that injury includes libel as well as physical injury.

Finally, we asked each carrier to inform us if coverage would be provided in the following situation:

We asked them to assume these facts. Members of the medical staff of "X" hospital determine the admission or expulsion of physicians from the medical staff. Only members of the medical staff are entitled to hospital privileges. Dr. "A," a member of the medical staff, was asked to investigate the surgery performed by Dr. "B." Dr. "A's" report stated that Dr. "B" was incompetent and had performed unnecessary surgery. On the basis of this report Dr. "B" was expelled from the medical staff. He then brought suit against Dr. "A" charging libel.

Eight carriers of the 22 would defend and pay any judgment. Two would defend but would not pay any judgment. Two stated that a difference of opinion existed regarding coverage and did not indicate their own position. Ten stated there was no obligation either to defend or to pay.

Recently there have been a few cases of this nature and we anticipate that there will be similar suits filed in the future as the needs and complexities of modern medicine and surgery require stricter discipline within the self-government of modern hospitals. From the responses to this question, the average physician has no assurance whatsoever as to whether his professional liability insurance will cover him for such activity. But every physician who is a member of such a committee should have some protection, i.e., insurance, in this situation.

I wish to point out that the AMA-AHA Medicolegal Education Committee has considered this problem and has made a similar recommendation, namely, that there should be some insurance. However, the Committee has not made a recommendation as to whether the necessary protection should be obtained by the individual physician or should be provided by the hospital.

Summary and Conclusions

There will always be shades of difference among insurance carriers in the interpretation they place on standard professional policy provisions, but the standard medical professional liability policy does not, in my opinion, reflect present-day conditions. It is antiquated. Thus it is not surprising that we find a widespread difference in opinion among the carriers as to whether there is coverage. Today it is not the charlatan or the marginal physician who is being sued for malpractice. As you know, it is the reputable physician. Hence the medical professional liability insurance policy should be reëxamined and clarified in the light of modern medical practices. And I believe that we, representatives of medical societies, should answer the physician's question concerning the extent of his coverage. We must alert him to the exclusions and ambiguities which exist in his policy. At the same time we should encourage insurance carriers to bring their policies up to date so that the physician will have the protection which he wants, which he needs, and which he thought he had.

Membership

The following applicants for membership will be voted on at the meeting of the Executive Board, November 28, 1960.

For Active Membership

Leonidas A. Ayton, Howard University—1953
Frank J. Bepko, Jr., Georgetown University—1955
Nicholas S. Ionedes, University of Athens (Greece)—1949
David A. Lanham, St. Louis University—1955
James L. Manuell, St. Louis University—1945
John W. Rout, Howard University—1944
Leslie Schaffer, University of London (England)—1948
William H. Seward, Jr., Georgetown University—1954
Robert W. Woods, Loyola University—1948

For Associate Membership

Josef H. Meir, University of Geneva (Switzerland)—1952
William F. Sheeley, University of Chicago—1941
Ira N. Tublin, University of Maryland—1954

ON THE LIGHTER SIDE

Thanksgiving means many things to many people. To the school boy or girl, Thanksgiving means a school holiday and a merry feast at home with roasted turkey, mashed potatoes, green peas, carrots, celery and olives, spiced dressing and, of course, cranberry sauce in one of its many forms. Naturally, there must be pumpkin pie with a dab of thick whipped cream piled high upon its natural brown filling.

To the sick and weary, Thanksgiving means something else again. Maybe it is a frantic hope for recovery; maybe it is a quiet desire for surcease from all pain, or a quick slipping away into the Beyond from which there is no returning.

To the optimistic wife and mother there is the ever-giving of thanks for a healthy, happy family that is hers to have and to hold by perseverance, daily toil, love and affection.

To the husband and father, Thanksgiving means the opportunity to look about him and take stock of all those things for which he has been entrusted: to give thanks for the loyal helpmate, to give thanks for the little ones that have been given to him, to give thanks for every bit of security that he has forged from nothing into something, and to give thanks for the health and vigor that allow him to continue to provide security for those he loves.

To give thanks is more than stuffing yourself with roast turkey, cranberry sauce, and all the trimmings. It is more than personal desires for blooming health or the darkness of death. It is more than a warm comfortable feeling concerning one's family. To give thanks means probing one's soul for the inevitable thankfulness that must emanate from man's inner consciousness, and to be able to utilize that thankfulness by doing for others that which they cannot do for themselves.

Consider yourself! What sort of a person are you? Do you take for granted the breakfast, lunch and dinner existence of everyday life? Do you casually expect the fruitfulness of your medical-surgical practice to be your right? Do you look forward to a night's repose and the morning awakening as your due?

We doctors are prone to look upon our everyday life as something to be accepted with no questions asked. It is our heritage, so to speak, and who shall deny us? We look down our patrician noses at anyone who would dare suggest that the good life is not ours deservedly. But let us look at the record!

Just who is directly responsible for our level of living? Is it our parents who sacrificed day after day so that some son or daughter, deserving or not, might finish college, medical school, and hospital training without the agonies of financial hardship and worry? Is it the moral and financial help that a loving, working wife supplied while the young medico achieved his goal? Is it the scholarship that lay in its bed gathering interest that eased the way toward ultimate success? Whatever the source of help and inspiration that boosted us up the ladder, we must give thanks this Thanksgiving Season for why and who and what we are.

Let us be downright humble and sincerely thankful to the Powers That Be who guided our stumbling way and kept vigilant watch over us through all our miserable mistakes and failures until we achieved what manner of success that is ours today.

In ourselves we are nothing! It is only through Grace that we are here at all, and only through Grace that we are allowed to be. What a tremendous help it is to the soul to silently meditate our past and our present in order to gain a new perspective of what we are and why we are and who we are!

Bowling note: The new Doctors' Bowling League that began so auspiciously the night of September 23 is having growing pains. But Dr. George Resta has insurmountable optimism concerning the new League, and if it rubs off on some of the disgruntled there should be smooth sailing from now on in. The Columbia team of Drs. Clyde and George Reeves, Franklin Hodge, Eugene McDonald, Al Connolly, Earl Kadan, and Mr. Irwin Sealfon are leading the League to date with 9 wins and no losses.

* * * * *

Chuckle note: Behind every successful man there is a woman—constantly telling him he's not so hot! No self-made man ever did such a good job that some woman didn't want to make a few alterations here and there. By the time a man gets to the point where he can buy his wife dresses at a fancy figure, she hasn't got it. If it's a man's world, I betcha it's in his wife's name.

J. Earl Kadan, M.D.

Correspondence

Editor's note: During the last year over a hundred Washington physicians have been sharing their medical journals with doctors all over the world. They have extended friendly hands and medical knowledge to physicians in Ghana, Burma, Korea, Formosa, Indonesia, Liberia, Ceylon, Viet Nam, the Philippine Islands, and other areas of the world where medical journals of the United States are not easily obtained.

The Committee for Medical Journal Exchange with Underdeveloped Areas has served as the clearing house for these efforts and has been able to obtain lists of foreign doctors for matching with Washington physicians.

The following letter, which was received by Dr. O. H. Jorgensen, is representative of many which have been received. Members of the Society who would like to participate are asked to contact Dr. Stanley J. Talpers at Executive 3-8000 or Oliver 6-2022.

Dear Dr. Jorgensen:

First, I would like to express my sincere thanks to you for sending me *Modern Medicine* and *J.A.M.A.* as quickly as you can. I also wish to extend my cordial greetings to all physicians, members of the District of Columbia Medical Society.

I am writing you this letter from a Province, some 230 Km. far from Saigon. Since last month, I came down here to take the new assignment of Provincial Chief Physician. However, you may send letters and journals to my home address in Saigon.

I would be most happy to correspond with you. If you have time, please write to impart to me your knowledge and experiences in the basic practices of the Healing Art.

I am a G.P., but I also do general surgery. In the Provincial Hospital where I am working now I am the chief of the Surgical Department. We have not enough human blood, even dextrose or normal saline!! Our health policy is always focused upon the masses in the establishment of our programs. Among the long-range programs, the two most important ones are: the Rural Health Program and the Malaria Eradication Program. First aid stations, rural maternities (yes, most of our obstetric patients are handled by midwives), and infirmaries have been set up in most villages, even remote ones.

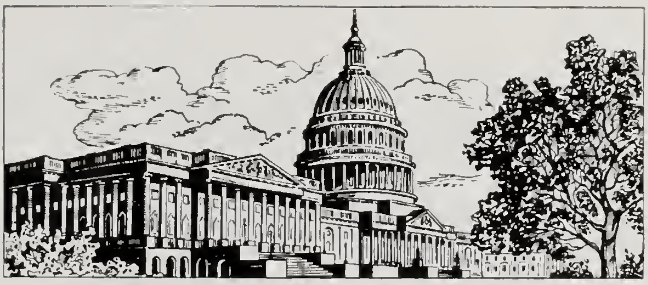
We are upheld by the faith in the noble winning of our profession, which consists of protecting the health of our compatriots, thereby raising the standard of living of the masses with the view of perfecting our independence and achieving the unity of our Fatherland. I am 37 years old, married to a teacher, and father of a 6 months' old boy.

I graduated from a French Medical School, then spent 7 months at Tripler U. S. Army Hospital in Hawaii, in my general surgical training. I speak fluently French and my second foreign language is English. Every week I read *Tours de France*, *Match de Paris*, *Time*, *Newsweek* (Pacific edition) as newsmagazines, and *la L'emaine des hopitaux*, *la Revue du praticien*, *La presse medicale* as medical journals.

I must say that American medical books and journals are too expensive!!

Thank you for your friendly greetings and for your best wishes.

Sincerely yours,
Le Van Khoa, M.D.



NEWS & PERSONALS

Meetings

The American College of Chest Physicians will hold its annual **Interim Session** at the Shoreham Hotel in Washington, Saturday and Sunday, November 26 and 27. Dr. Joseph W. Peabody, Jr., and his committee have arranged a scientific program of exceptional interest, including Symposia on Congenital Bronchopulmonary Disorders, The Role of Steroid Therapy in Chest Diseases, and Current Therapeutic Issues.

A highlight of the program will be the Fireside Conference on Sunday evening, November 27. In addition there will be 3 round table luncheon discussions on both Saturday and Sunday, when prominent speakers will discuss various aspects of heart and lung diseases.

The Washington, D. C. Area Council on Alcoholism, Inc., is sponsoring a one-day workshop on Unmet Needs in the Washington Area in Alcoholism on Friday, December 2, in the North Building of the Department of Health, Education, and Welfare. Professional people who deal with the problem of alcoholism are invited to attend. A special workshop for physicians is planned. There is no registration fee. Further information may be secured from the Council, 1400 Que Street, N.W., Washington 9, D. C., telephone Hobart 2-4421.

St. George Society, an organization of medical students from George Washington, Georgetown, and Howard Universities interested in cancer education, has arranged a program of outstanding speakers during the fall and winter months. On December 5, Dr. George Crile, Head of the Department of Surgery, Cleveland Clinic Foundation, will speak on "Thyroid Cancer." The meeting will be held in the auditorium of the D. C. Medical Society, beginning at 8 p.m. A fellowship coffee hour will be held in the library following the address. All members of the D. C. Medical Society are welcome to attend.

Again this year the **Joint Urological Conferences** are being held the last Tuesday of the month, October through May, in Room 101 of the Georgetown University Medical School Building, beginning at 8 p.m. Participating hospitals and institutions are Georgetown, George Washington, Freedmen's and D. C. General Hospitals; also Walter Reed Army Medical Center, Naval Medical Center, and Mt. Alto Veterans Urological Services. Dr. William P. Herbst presides at the meetings, which are open to interested physicians.

General News

The Executive Board of the Medical Society of the District of Columbia met on September 26, 1960; Dr. W. Ross Morris, Chairman, presided. The Board endorsed the selection of the Service Guild of Washington, by the Committee on Public Information and Education, to receive the John Benjamin Nichols Award for 1960 in recognition of its outstanding service and contributions to the betterment of health of the people of the District of Columbia.

The Board approved the reappointment of the present members of the Obstetrical Board to serve for a 3-year period. They are: Dr. C. K. Fraser, Chairman; Dr. J. Bay Jacobs, Secretary; Drs. Robert H. Barter, Raymond T. Holden, Andrew A. Marchetti, and Ella Oppenheimer; also, Dr. Alvin F. Robinson, to represent the Medico-Chirurgical Society of D. C., and Dr. Coleridge M. Gill, to represent Howard University School of Medicine.

Dr. Oscar B. Hunter, Jr., and Dr. W. LeRoy Dunn were designated the Society's representatives on the planning committee for the 1961 "Health U.S.A." award, which is sponsored by the Washington Board of Trade.

The Secretary reported that a copy of the Medical Society's Constitution and By-laws for 1861 had been donated for its archives by Mr. Mack Krents.

Plans are under way for the **Second International Congress of Neurological Surgery,** which will be held about a year from now in Washington at the Hotel Statler-Hilton, October 14–20, 1961. Advance registration forms may be secured from Dr. Bronson S. Ray, Secretary-General of the World Federation of Neurosurgical Societies, 525 East 68th Street, New York 21, N. Y.

Applications for the presentation of scientific papers, scientific exhibits and motion pictures are now being accepted. Application to present a paper should be in the hands of the Secretary-General on or before March 1, 1961. The last day to make application to exhibit is January 1, 1961. Applications to show motion pictures should be in the hands of the Secretary-General by March 1, 1961. In order to provide maximum opportunity for members to present films, it is suggested that a motion picture presentation not exceed 20 minutes. Application forms are available from the office of the Secretary-General.

Competitive examinations for appointment of physicians as **Medical Officers in the Regular Corps of the United States Public Health Service Commissioned Corps** will be held on January 31, February 1 and 2, 1961, in a number of cities throughout the United States. Applications must be in the office of the Surgeon General, United States Public Health Service (P), Washington 25, D. C., no later than December 2, 1960.

Applications for charter membership in the American Society of Diagnostic Radiology are now being received. Membership is open to general practitioners and to internists who do or may desire to do some type of diagnostic radiology in their office. Further information may be secured from Dr. Louis Shattuck Baer, 411 Primrose Road, Burlingame, California.

Brigadier General Clinton S. Lyter, M.C., U.S.A., assumed command of **Walter Reed General Hospital** on September 15. His previous post was as Commanding General of the William Beaumont General Hospital, El Paso, Texas.

A native of Kansas, General Lyter received his medical degree from the University of Kansas. He is a graduate of the Army Medical School and the Medical Field Service School. He is a member of the American Medical Association, a Fellow of the American College of Surgeons, and a diplomate of the American Board of Surgery.

The proceedings of the Symposium on Phenomena of the Tumor Viruses, held on March 25 and 26, 1960, in New York City, have been published by the National Cancer Institute of the Public Health Service. Listed as National Cancer Institute Monograph No. 4, the publication is available from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C., at $3.00 per copy.

Dr. George W. Hyatt has been appointed **Professor of Surgery (Orthopedics) at Georgetown University School of Medicine** and Director of the Division of Orthopedic Surgery at the University Hospital. Dr. Hyatt comes to Georgetown from the Naval Medical Center at Bethesda, where he was director of the Tissue Bank. He has received wide recognition for his work in the development of the preservation of tissues, including bone, and in the establishment of tissue banks.

The following members of the **Montgomery County (Maryland) Medical Society** will take office on January 1, 1961:

Dr. Charles H. Ligon, Sandy Spring, *President;* Dr. DeWitt E. DeLawter, Washington, *Vice President;* Dr. James A. Roberts, Silver Spring, *Secretary;* and Dr. John P. Haberlin, Silver Spring, *Treasurer.*

Dr. DeLawter, an Affiliate member of the D. C. Medical Society, has served as Secretary of the County Society during 1960. Dr. Roberts is an Associate member of the District Medical Society.

The National Cystic Fibrosis Research Foundation moved its national headquarters to 521 Fifth Avenue, New York City, on October 1. The offices were formerly in Philadelphia.

Personals

Dr. James N. Greear, Jr., a leading ophthalmologist in the District of Columbia for many years, and Past President of the District of Columbia Medical Society, was elected President-elect of the Nevada State Medical Association, September 10. Dr. Greear has been practicing ophthalmology in Reno for the past 10 years, after moving there from Washington, D. C., and is Past President of the Reno Surgical Society.

Dr. Greear graduated from the University of Virginia School of Medicine in 1920. From 1928 to 1940 he was Professor of Ophthalmology at Georgetown University School of Medicine.

During World War II he served as senior consultant in ophthalmology to the European Theater of Operation, with headquarters in the office of the chief surgeon in Paris. From 1943 to 1945 he was in charge of the Army's Eye Center in Valley Forge General Hospital at Phoenixville, Pa. Following the war he served as consultant to the Central Office of the Veterans Administration in Washington, and he is presently serving as area consultant for the Northwest States. He has maintained his affiliation with the D. C. Medical Society as an Associate member.

WASHINGTON RADIOLOGIST ELECTED TO NATIONAL OFFICE

Dr. Ralph M. Caulk (center), newly elected Chairman of the Executive Council of the American Roentgen Ray Society, reviews plans for the Society's 1961 annual meeting with two fellow officers, Dr. Harold G. Reineke (left), of Cincinnati, Ohio, who is President, and Dr. Traian Leucutia, of Detroit, Michigan, President-elect. Dr. Caulk was elected to office during the Society's 61st Annual Meeting in Atlantic City, September 27–30.

Dr. Hugh H. Hussey, Dean of Georgetown University School of Medicine, has been appointed to the Board of Regents of the National Library of Medicine. The appointment, which was made by the President of the United States, was announced on September 23 by Mr. Frank B. Rogers, Secretary to the Library's Board of Regents. The Board serves in an advisory capacity to the Library, which is under the supervision of the Department of Health, Education, and Welfare.

Dr. Richard A. Steinbach has been named Chairman of the Department of Psychiatry of Georgetown University School of Medicine. He came to Georgetown in 1954 after serving as staff psychiatrist at Haven Sanitarium, Rochester, Michigan. He has been Acting Chairman of the Department at Georgetown for a year.

Dr. Steinbach graduated from the Medical College of Georgia in 1947. He took his residency training in psychiatry at Cincinnati General Hospital from 1948 to 1950, and again from 1952 to 1953. During the intervening years, 1950–1952, he was in the military service. He is an assistant examiner for the American Board of Psychiatry and Neurology.

Dr. Jorge B. Morales was sworn in, October 4, as Deputy Coroner for the District of Columbia. Dr. Morales took the oath of office from Coroner A. Magruder MacDonald at the D. C. Morgue.

Dr. Morales, the first pathologist to be appointed to the coroner's post in Washington, has been associated with Providence Hospital since 1951, except for 3 years with the Air Corps. He will continue as associate pathologist at Providence along with his new duties as Deputy District Coroner.

Dr. Morales received his medical degree from Loyola University in Chicago in 1950. He was accredited by the American Board of Pathology in pathologic anatomy in 1955. The post he fills was left vacant by the death of Dr. Christopher J. Murphy in March.

Dr. Walter K. Myers, well known internist, has been elected to the Board of Trustees of the National Geographic Society. He succeeds the late John Oliver LaGorce. Trustees on the 24-member Board are appointed for life.

Dr. Myers is a Special Lecturer in Internal Medicine at George Washington University School of Medicine. He is also a consultant in internal medicine to the Washington Hospital Center, the Washington Home for Incurables, and the Glenn Dale Sanitarium. He is a graduate of Princeton University and the Johns Hopkins University School of Medicine.

Dr. Maurice Protas has been reappointed Governor for the District of Columbia for a 3-year term, 1960–63, by the American Diabetes Association.

Books Received

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interest of our readers and as space permits. Physicians are urged to submit reviews of additional books which, in their opinion, merit comment.

Synopsis of Pathology, 5th ed. W. A. D. ANDERSON, M.A., M.D., F.A.C.P., F.C.A.P., Professor of Pathology, University of Miami School of Medicine; Director of Pathology Laboratories, Jackson Memorial Hospital, Miami, Florida. Price, $9.25. Pp. 876, with 414 text illustrations and 4 color plates. St. Louis: Mosby, 1960.

Rypins' Medical Licensure Examinations—Topical Summaries and Questions, 9th ed. WALTER L. BIERRING, M.D., M.A.C.P., M.R.C.P., Edin. (Hon.), Director, Division of Gerontology, Heart and Chronic Diseases, Iowa State Department of Health; Secretary-Editor, Federation of State Medical Boards of United States; Professor of Medicine Emeritus, State University of Iowa, College of Medicine; former member, National Board of Medical Examiners; American Board of Internal Medicine; Chairman Emeritus of American Board of Preventive Medicine; Iowa State Board of Medical Examiners; former Iowa State Commissioner of Health. With the collaboration of a Review Panel. Price, $11.00. Pp. 805. Philadelphia: Lippincott, 1960.

The Management of the Doctor-Patient Relationship. RICHARD H. BLUM, PH.D., formerly Director of Research, Medical Review and Advisory Board, California Medical Association, and Associate Scientist, Stanford Research Institute. Foreword by Joseph Sadusk, M.D., Chairman, American Medical Association Committee on Medical-Legal Relations; Past Chairman, California Medical Association Review and Advisory Board, and Rollen Waterson, formerly Executive Secretary, Alameda-Contra Costa Medical Association. Price, $8.50. Pp. 304. New York: McGraw-Hill, 1960.

Handbook of Medical Treatment, 7th ed. Edited by MILTON J. CHATTON, M.D., Assistant Clinical Professor of Medicine, University of California (San Francisco) and Stanford University (Palo Alto) Schools of Medicine; Geriatric Consultant, Palo Alto Medical Clinic; SHELDON MARGEN, M.A., M.D., Associate Research Biochemist, Department of Physiological Chemistry, and Clinical Instructor in Medicine, University of California School of Medicine, San Francisco, AND HENRY BRAINERD, M.D., Professor of Medicine and Chairman, Department of Medicine, University of California School of Medicine, San Francisco, and Physician-in-chief, University of California Hospitals, San Francisco. Price (paper), $3.50. Pp. 569. Los Altos, Calif.: Lange, 1960.

The Multilingual Manual for Medical Interpreting. LOUIS R. M. DEL GUERCIO, M.D., Chief Resident Surgeon, St. Vincent's Hospital, New York, N. Y.; Assistant in Surgery, New York University College of Medicine, and 6 contributing editors. Price (paper), $2.50. Pp. 160. New York: Pacific Printing Company, 1960.

French's Index of Differential Diagnosis, 8th ed. Edited by Arthur H. Douthwaite, M.D., F.R.C.P., Senior Physician, Guy's Hospital; Honorary Physician, Westminster Hospital and All Saints' Hospital for Genito-urinary Diseases. Price, $24.00. Pp. 1111, with 774 illustrations, 216 in color. Baltimore: Williams & Wilkins, 1960.

Fundamentals of Chest Roentgenology. Benjamin Felson, M.D., Professor and Director, Department of Radiology, University of Cincinnati College of Medicine; Director, Departments of Radiology, Cincinnati General, Children's, Daniel Drake, Dunham, Christian R. Holmes, and Longview Hospitals; Special Consultant, United States Public Health Service; Consultant to the Dayton and Cincinnati Veterans Administration Hospitals. Price, $10.00. Pp. 301, with 450 illustrations on 238 figures. Philadelphia: Saunders, 1960.

The Role of the Physician in Environmental Pediatrics. Carl C. Fischer, M.D., Professor and Head of the Department of Pediatrics, Hahnemann Medical College and Hospital; Director of the Health Service, Girard College, Philadelphia, Pa. Pp. 122. New York: Landsberger, 1960.

Obstetrics—From the Original Text of Joseph B. DeLee, M.D., 12th ed. J. P. Greenhill, M.D., F.A.C.S., F.I.C.S. (Hon.), Senior Attending Obstetrician and Gynecologist, The Michael Reese Hospital; Obstetrician and Gynecologist, Associate Staff, The Chicago Lying-In Hospital; Attending Gynecologist, Cook County Hospital; Professor of Gynecology, Cook County Graduate School of Medicine. Price, $17.00. Pp. 1098, with 1219 illustrations on 903 figures, 119 in color. Philadelphia: Saunders, 1960.

Occupational Diseases and Industrial Medicine. Rutherford T. Johnstone, M.D., Consultant in Industrial Medicine, Clinical Professor of Preventive Medicine and Public Health, and Clinical Professor of Medicine. University of California at Los Angeles, and Seward E. Miller, M.D., Director, Institute of Industrial Health; Professor of Medicine, Medical School, and Professor of Industrial Health, School of Public Health, University of Michigan, Ann Arbor. Price, $12.00. Pp. 482. Philadelphia: Saunders, 1960.

Physician's Handbook, 11th ed. Marcus A. Krupp, M.D., Associate Clinical Professor of Medicine, Stanford University School of Medicine, Stanford; Director, Palo Alto Medical Research Foundation, Palo Alto; Norman J. Sweet, M.D., Associate Professor of Medicine, University of California School of Medicine, San Francisco; Ernest Jawetz, Ph.D., M.D., Professor of Microbiology and Lecturer in Medicine and Pediatrics, University of California School of Medicine, San Francisco, and Charles D. Armstrong, M.D., Assistant Clinical Professor of Medicine, Stanford University School of Medicine, Stanford. Price (paper), $3.50. Pp. 547. Los Altos, Calif.: Lange, 1960.

Obituaries

TIMOTHY FRANCIS MURPHY, M.D.

(1875–1960)

Dr. Timothy F. Murphy, formerly chief statistician with the Bureau of the Census, died August 29, 1960, at the Resmor Sanitarium in Bethesda, Maryland.

Dr. Murphy was born in Lewiston, Maine, December 5, 1875, to Thomas and Mary E. Murphy. He attended the public schools in Lewiston and took special courses at Bowdoin College. He received his medical degree from George Washington University in 1906. After a year of private practice he joined the Bureau of the Census.

During his 46 years of service with the Census Bureau, he became chief statistician, first of the Vital Statistics Division and then the Division of Information, Publications and Records. He served in Paris as an expert member of the International Commission for the Revision of List of Causes of Death in 1930 and 1931, and as a member of the National Conference on Nomenclature of Disease.

Dr. Murphy was affiliated with the D.C. Medical Society as an Associate member since 1931. He was a member of the American Statistical Association, American Medical Association, American Public Health Association, the University Club, and Zeta Psi and Phi Chi fraternities.

His wife, Mrs. Julia Randall, died in 1944. He formerly lived at 1673 Columbia Road, N.W.

He is survived by one son, Elliot Murphy, who is with the International Coöperation Administration in San Jose, Costa Rica.

MICHAEL D'ARCY MAGEE, M.A., M.D.

(1871-1960)

Dr. Michael D'Arcy Magee, retired Washington surgeon, died, August 19, 1960, at Alexandria Hospital.

Dr. Magee was born in Norfolk, Virginia, July 21, 1871. He received a Master's degree in Arts from Rock Hill College in Ellicott City, Maryland, before he enrolled at Georgetown University School of Medicine. He graduated from Georgetown in 1896 and taught anatomy there until 1906.

For a time he was Acting Superintendent and chief resident physician at Garfield Memorial Hospital. During World War I he organized and headed the Home Defense medical branch in Washington.

He maintained a private practice in the District of Columbia from 1897 until he retired in 1924. In 1896 he authored a book, "Epitome of Surgery."

He was elected to Active membership in the Medical Association of the District of Columbia in 1897 and to the Medical Society of D. C. in 1898. Due to a long illness, he transferred to Associate membership in 1933, but terminated his membership the following year. He was a member of the Southern Medical Association and for many years a member of the American Medical Association.

Dr. Magee was Past President of the District Izaak Walton League and Past Vice President of the national Izaak Walton League. He was Past President of Manresa Archdiocese League Laymen's Retreat, and a member of the Third Order of St. Dominic, Knights of Columbus, and the St. Vincent de Paul Society.

Surviving him are his son, Dr. William D. Magee, of East Meadows, Long Island, and five daughters: Mrs. Margaret McCullough, of Fayette, Mo.; Mrs. Elizabeth Fleming, Arlington, Va.; Mrs. Dorothy Brandenburg, Bethesda, Md.; Mrs. Genevieve Howard, Lanham, Md.; and Mrs. Lucille Stapleton, of the home address, 2018 George Mason Drive, Alexandria, Va.

Integrated Patient Care—Kaplan

(*Continued from page 607*)

of outside pressure groups in an attempt to force continued hospitalization of the veteran at Mount Alto, has decreased appreciably.

The therapeutic circle is again complete. Some of the art, much of the personal, and all of the paternal approach of the old-time family physician with its radiating warmth and dedication exist no longer. Fildes' painting, "The Physician," seems reminiscent of antiquity and is looked upon with sympathetic tolerance. It is indeed a far cry from today's aseptic-appearing, white-coated physician in the modern hospital background. Science and specialism have taken over the practice of medicine. The therapeutic circle is now divided into many separate segments, each the province of a specialist. At Mt. Alto this team (directed by the ward physician) by means of Integrated Patient Care Rounds combine their individual efforts to make the patient's therapeutic circle complete.

Mediastinal Emphysema—Sulavik and Katz

(*Continued from page 617*)

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9. Draper, A. J.: Am. J. Med., 1948, **5,** 59.
10. Katz, S.: GP, 1956, **13**(1), 97.
11. Chapman, J. S.: Am. J. Med., 1955, **18,** 547.
12. Aisner, M., and Franco, J. E.: New England J. Med., 1949, **241,** 818.
13. Fagin, I. D., and Schwab, E. H.: Ann. Int. Med., 1946, **24,** 1052.

Tumors of Chromaffin System—Higgins and Wherry

(*Continued from page 627*)

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32. Reutter, F. W., and others: Ibid., 1957, **257,** 323.
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34. Higgins, G. A.: Am. Surgeon, 1956, **22,** 904.

MEDICAL SOCIETIES WITH LIMITED MEMBERSHIP
Washington, D.C.
1960–1961

Society	President	Secretary	No. Meetings per Year	Date of Meetings	Place of Meeting
Academy of Medicine of Washington, D. C.	J. H. Roe	A. M. Griffin	3	On call	Cosmos Club
Allergy	W. A. Howard	A. M. Connor	4	On call	Golden Parrot Restaurant
American Academy of General Practice, D. C. Chapter	B. Miller	W. R. Perkins, Jr.	4	3rd Tuesday, Nov., Jan., Feb., Apr.	MSDC Building
American College of Chest Physicians, Potomac Chapter	M. Kress	J. W. Peabody, Jr.	1	Nov. 26–27	Shoreham Hotel
American Federation for Clinical Research, D. C. Chapter	L. S. Lilienfield	H. W. Schnaper	5	On call	MSDC Building
American Medical Writers' Association, Mid-Atlantic Chapter	R. P. Odenwald	E. Trowbridge	3	On call	
Clinical Club of Washington	V. L. O'Donnell	A. F. Castro	7	1st Tuesday	Kennedy-Warren
Clinico-Pathological	W. Bruner, Jr.	F. D. Chapman	8	3rd Tuesday	Homes
Diabetes Association	W. Kurstin	L. K. Alpert	1	May	MSDC Building
D. C. Society of Anesthesiologists	T. F. McDermott	E. N. Chapman	4	Oct., Dec., Feb., Apr.	MSDC Building
Georgetown Clinical	T. F. McMahon	R. J. Meyer	7	3rd Wednesday	Broadmoor Hotel
George Washington University	E. E. Ferguson	M. P. Goumas	2	On call	
Hippocrates-Galen	J. T. Burns	B. G. Brown	5	1st Thursday, Oct., Nov., Feb., Mar., Apr.	Kennedy-Warren
International Medical Club	A. A. Morris, Jr.	R. V. Choisser	3–6	On call	
Jacobi	H. Stevens	S. Zuckerman	8	3rd Monday	Willard Hotel
Jefferson Medical College Alumni Association	S. L. Rollins, Jr.	W. R. Stecher	2	Apr., Nov.	
Kober	R. H. Groh	J. R. Cavanagh	8	3rd Monday	Army-Navy Club
Louis Mackall	E. H. Bauersfeld	K. Dortzbach	7	3rd Thursday	Kennedy-Warren
Medical Arts	J. Q. Gant, Jr.	H. P. Laughlin	8	2nd Thursday	Kennedy-Warren
Metropolitan Health Officers' Association	W. J. Peoples	M. Grant	4	On call	Prince Georges Country Club
Northern Virginia Academy of Surgery	A. M. Ferry	F. Williams	3	Jan., May, Oct.	
Osler	T. L. Hartman	B. Nelson	8	3rd Monday	Homes
Pan American Medical Society of D. C.	F. F. Sacasa	J. H. Scully	6	Bi-monthly	Mayflower Hotel and Pan American Union
Providence Hospital Doctors Alumni Association	J. F. Brennan, Jr.	J. F. Harrington	20	3rd Sunday and on call	Providence Hospital
Rheumatism	E. T. Phelps	W. R. Felts, Jr.	8	On call	
Saint Elizabeths	F. N. Waldrop	L. D. Robinson	3	On call	St. Elizabeths Hospital and MSDC Building

MEDICAL SOCIETIES WITH LIMITED MEMBERSHIP—CONTINUED

Society	President	Secretary	No. Meetings per Year	Date of Meetings	Place of Meeting
Society of Internal Medicine	J. F. Finnegan	W. D. Brill	2	On call	
Washington Academy of Neurosurgery	H. Ammerman	A. A. Morris, Jr.	4	Last Wednesday, Sept., Nov., Feb., Apr.	Kenwood Country Club
Washington Academy of Surgery	L. W. Gray	C. S. White, Jr.	5	On call	Kennedy-Warren
Washington, D. C. Dermatological	R. S. Higdon	M. A. Weiner	6	Oct. 15, Nov. 22, Jan. 26, Feb. 23, Apr. 27, May 25	
Washington Gynecological	G. J. Ellis	J. W. Pearson, Jr.	4	Oct. 27, Dec. 7, Jan. 28, Mar. 29	Columbia Country Club and Willard Hotel
Washington Homeopathic	W. P. Baker	H. H. Custis, Jr.	4	4th Tuesday, Oct., Jan., Mar., May	Columbia Country Club
Washington Medical and Surgical	E. R. Fenton	M. C. Cobey	6	4th Monday	Army-Navy Town Club
Washington Orthopedic Club	F. M. Swisher	T. M. Foley, Jr.	7	1st Monday	MSDC Building
Washington Psychiatric	W. Malamud, Sr.	L. Yochelson	8	4th Friday	MSDC Building
Washington Psychoanalytic	S. L. Olinick	R. C. Burnham	8	2nd Friday	1720 M Street, N.W.
Washington Society of Pathologists	W. Newman	D. L. Weiss	8	On call	Armed Forces Institute of Pathology
Washington Urological	G. R. MacDonald	G. R. Gable	6	Every 6 weeks	Doctors Hospital
Women's Medical	C. Donlan	G. Cochran	8	1st Tuesday	Doctors Hospital

NOTE: Most of these societies begin their meetings in October and continue through April or May.

SECTIONS OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA
1960–1961

Section	Chairman	Secretary	No. Meetings per Year	Date of Meetings	Place of Meeting
Allergy	W. A. Howard	A. M. Connor	4	On call	
Anesthesiology	T. F. McDermott	E. N. Chapman	4	Oct., Dec., Feb., Apr.	MSDC Building
Dermatology and Syphilology	M. A. Weiner	J. Q. Gant, Jr.	6	4th Thursday	
Gastroenterology	E. S. Witowski, Jr.	E. C. Wilson, Jr.	4	Oct. 31 and 1st Mon., Dec., Feb., Apr.	Kennedy-Warren
General Practice	S. Diener	C. P. Ryland	4	4th Tuesday, Oct., Jan., Mar., May	MSDC Building and Kennedy-Warren
Internal Medicine and Allied Subspecialties	W. K. Billingsley, Jr.	W. D. Brill	2	On call	MSDC Building
Neurology, Neurosurgery, and Psychiatry	D. S. O'Doherty	N. Horwitz	5	1st Thursday	MSDC Building
Ophthalmology	E. W. Dodd, Jr.	H. L. Bastien	4	Oct. 25, Dec. 13, Feb. 14, Apr. 3, (?)	Kennedy-Warren
Otolaryngology	M. J. Fischer	R. D. Ralph	4	2nd Tuesday, Nov., Jan., Mar., May	Army-Navy Club
Pathology and Laboratory Medicine	V. E. Martens	J. B. Morales	9	Last week of month	
Pediatrics	R. H. Todd	S. L. Leikin	2	On call	Children's Hospital
Radiology	C. E. Bickham, Jr.	W. E. Sheely	4	3rd Wednesday, Oct., Jan., Mar., May	MSDC Building

MEDICAL ANNALS
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The Use of Exhaled Air in Emergency Resuscitation

ALLEN S. CROSS, M.D.
Washington

SINCE ELISHA SAVED THE LIFE of a child by breathing into its mouth, as we can read in the Old Testament, medical history has recorded many individual cases of exhaled air resuscitation, but, strangely enough, the medical profession made no concerted effort to study the lifesaving potential of this technic until about 1950. This paper will concern itself primarily with a review of the current concepts of the physiologic advantages of exhaled air resuscitation, a review of adjuncts for its use, and the presentation of a new mouth-to-mouth oral resuscitator.

Most of us fail to realize the grave responsibility we physicians have, not only to be able to resuscitate the asphyxiated patient effectively ourselves, but also to teach a simple, effective means of resuscitation to local rescue agencies, police, firemen, Boy Scouts, and our individual patients, particularly new mothers.

The National Safety Council in its booklet, "Accident Facts,"[1] has estimated that there are approximately 11,000 deaths per year as a result of asphyxia or suffocation. The records indicate that approximately two-thirds of the initial rescue attempts are made by housewives or passers-by. These victims, however, make up only a fraction of cases where exhaled air resuscitation can save lives.

Table 1 is an abbreviated list taken from Flagg's book, "The Art of Resuscitation,"[2] and enumerates some 21 general causes of asphyxia.

TABLE 1*
Problems of Asphyxia

Neonatorum
Gases in warfare
Electrocution
Submersion
Pulmonary diseases
High altitude flying
Obstruction
Strangulation
Carbon monoxide
External pressure on the chest
Industrial gases
Drugs
Cardiac conditions
Anesthesia
Smoke
Allergy
Suffocation
Terminal poliomyelitis
Polyneuritis
Lack of oxygen (hypoxia) in manholes
Developmental and mechanical abnormalities

* From Flagg.[2]

Because of the wide variety of causes it is impossible to get the actual statistics for the total number of deaths for each class, but Flagg has given a total figure of 50,000 per year in the United States. Asphyxial death is a major medical problem, encountered at unappointed hours, not only in the home, on the street, in recreation areas, but even in our hospitals, in patients' rooms, the halls and the elevators, where resuscitation equipment is not immediately available.

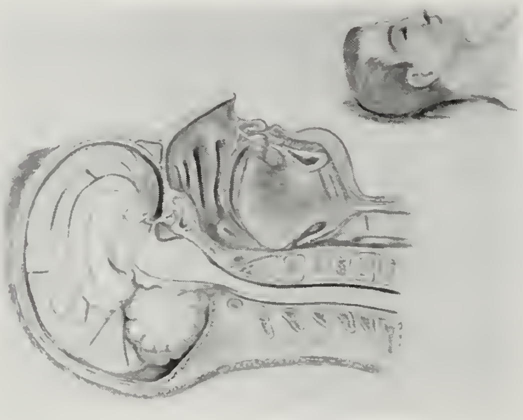

FIG. 1. Prone position—natural airway obstructed by tongue.

MOUTH-TO-MOUTH RESUSCITATION

Exhaled air resuscitation, or more commonly and restrictedly called mouth-to-mouth resuscitation, has been the subject of a great deal of coöperative study during the past 10 years. The National Academy of Sciences,[3] recognizing the grave importance of the problem of asphyxia, in 1957 appointed a panel of experts to study methods of resuscitation.

As an outgrowth of these studies the Council on Medical Physics of the American Medical Association authorized the publication in the *Journal* of the Symposium on Mouth-to-mouth Resuscitation conducted under the auspices of this Council. The report appeared in May, 1958 in the form of papers by Gordon,[4] Elam,[5] and Safar[6] and their associates, with an introduction by David B. Dill.[7] Also, as an outgrowth of these studies the American Red Cross[8] in May 1959 officially adopted mouth-to-mouth resuscitation as the preferred method for both infants and adults. This symposium, along with additional papers by Elam et al[9, 10] and editorial comment by Greene and Elam,[11] Cox et al,[12] and Safar et al,[13] has served to place this method of resuscitation on a firm physiologic basis. There are 4 major requirements of an effective method of resuscitation.

1. *Time factor.* Keeping in mind that we have at most 4 to 6 minutes after the onset of anoxia before permanent central nervous system damage may result due to lack of oxygen, the factor of time becomes of critical importance. Exhaled air resuscitation is the only method which will assure adequate ventilation and which, at the same time, can be applied immediately under essentially any circumstances by a single rescuer without the aid of any special equipment.

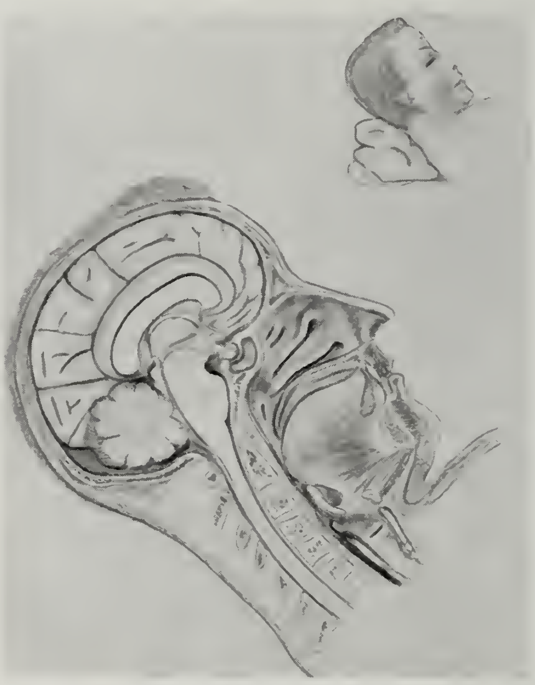

FIG. 2. Head flexed—natural airway obstructed by tongue.

2. *Maintenance of a patent airway.* Airway obstruction, be it anatomic or mechanical, is the most serious deterrent to effective resuscitation. The work of Safar et al,[6] Elam et al,[5, 9, 10, 11] and Gordon et al[4] have shown that the most effective means of maintaining a patent airway is by extension of the neck and tilting the head fully back as shown in figures 1, 2, and 3.

Exhaled air resuscitation is the only technic which permits the rescuer to continually hold the head of the victim in the correct position to maintain the patency of the natural passage and at the same time effectively perform resuscitation.

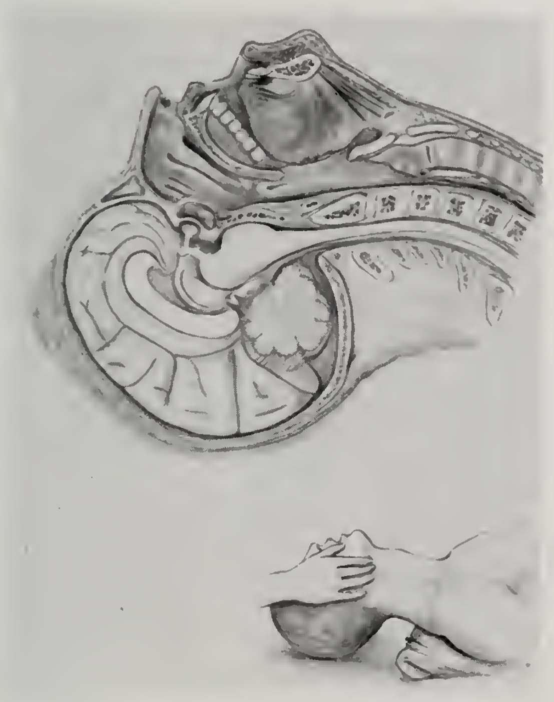

FIG. 3. Head hyperextended fully—natural airway opened maximally.

3 and 4. *Availability of O_2 and removal of CO_2.* Elam,[5] on the basis of theoretical calculations, has shown that the rescuer, by hyperventilating at a rate double his normal tidal volume, can supply adequate oxygen and assure removal of adequate amounts of CO_2 for effective resuscitation.

Assuming a normal tidal CO_2 level of 4 per cent, the rescuer should then have a tidal CO_2 level of 2 per cent (table 2). Also, on a theoretical basis, it may readily be seen from accepted hemoglobin saturation curves (figure 4) that concentrations of oxygen as low as 13.2 per cent, representing an O_2 partial pressure of 100 mm. Hg, would give 97 per cent saturation of hemoglobin at the normal CO_2 level of 40 mm. Hg. Careful experimental studies by many investigators working with anesthetized adults who were given relaxing drugs in paralytic doses have shown Elam's predicted levels to be essentially correct.

TABLE 2*

Predictions of Expired Air Resuscitation

	Air Ventilation, Liters Min.	Inspired Oxygen, Per cent	Oxygen Consumption, c.c. Min.	Expired Oxygen, Per cent
Normal man	5	21	300	15
Hyperventilating rescuer	10	21	300	18
Hyperventilated victim	10	18	300	15

* Reproduced by permission from *The Journal of the American Medical Association*,[5] page 329.

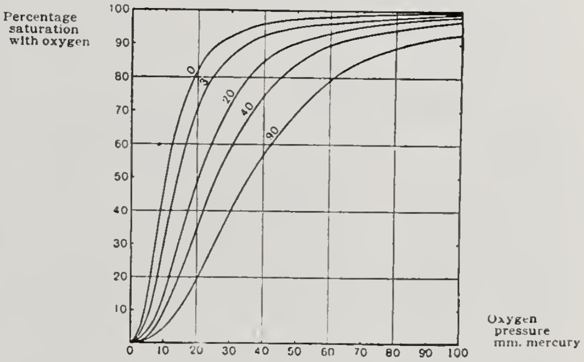

FIG. 4. Dissociation curve of human blood. Reproduced by permission of the C. V. Mosby Company from KLEINER, I. S., AND ORTEN, J. M.: Human Biochemistry, 5th ed. St. Louis: Mosby, 1958, page 587.

Figure 5, taken from a report by Elam,[5] shows the tidal volume, alveolar O_2, arterial O_2 saturation, and alveolar CO_2 from a single anesthetized patient who was made apneic by injection of Anectine. The return of alveolar oxygen to normal levels required only about 4 inflations of 5 to 20 seconds, depending upon the rate of inflation. The return of arterial oxygen levels to normal required an average of 67 seconds. Tidal volumes used were about 2 liters.

Figure 6 taken from a report by Cox and co-workers[12] shows the effect of exhaled air resuscitation on end tidal CO_2 levels of a single

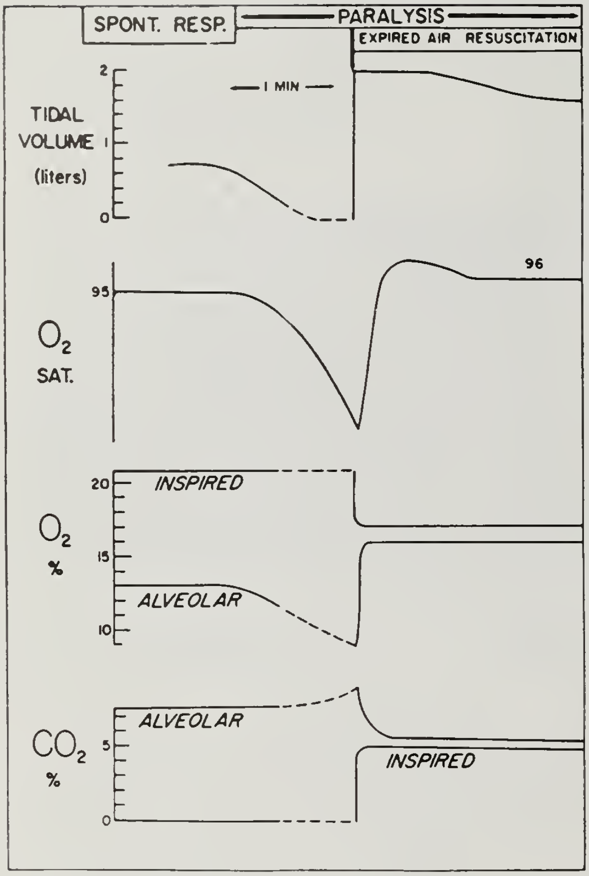

FIG. 5. Oxygen and carbon dioxide measurements in 1 patient. Reproduced by permission from *The Journal of the American Medical Association*,[5] page 332.

patient and his rescuer. The critical tidal volume appears to be about 10 liters per minute or 800 to 900 ml. per inflation, assuming an inflation rate of 12 per minute. Under these conditions the rescuer was able to maintain the patient's CO_2 level within normal values without hyperventilating to a point of distress.

Table 3, taken from a report by Safar,[13] shows the results of comparative studies of various manual methods of resuscitation with respect to tidal volumes. Even under ideal circumstances, that is, with an endotracheal tube to maintain a patent airway, the manual methods only approached the critical tidal volumes found by Cox.[12] Safar[13] further reported that tidal volumes of 1,000 to 1,500 ml. at rates of 12 to 20 per minute could be maintained for 30 minutes without discomfort to the rescuer when the mouth-to-mouth method is used.

Thus, on the basis of these 4 essential criteria, exhaled air resuscitation far excels the manual methods of emergency resuscitation. Exhaled air has the additional advantages of correct temperature and moisture content, and based on the observed need of the patient and a sense of compliance obtained in performing the resuscitation, the rescuer may increase or decrease the pressure, rate and volume of inflation to meet the needs of the particular victim.

The physiologic principles of the rescue breathing technic are summarized graphically in figure 7. In normal adult breathing, the tidal volume is approximately 500 ml., of which 200 ml. is due to the action of chest muscles and 300 ml. to the action of the diaphragm; the rate is 12 inspirations per minute, and the time ratio of

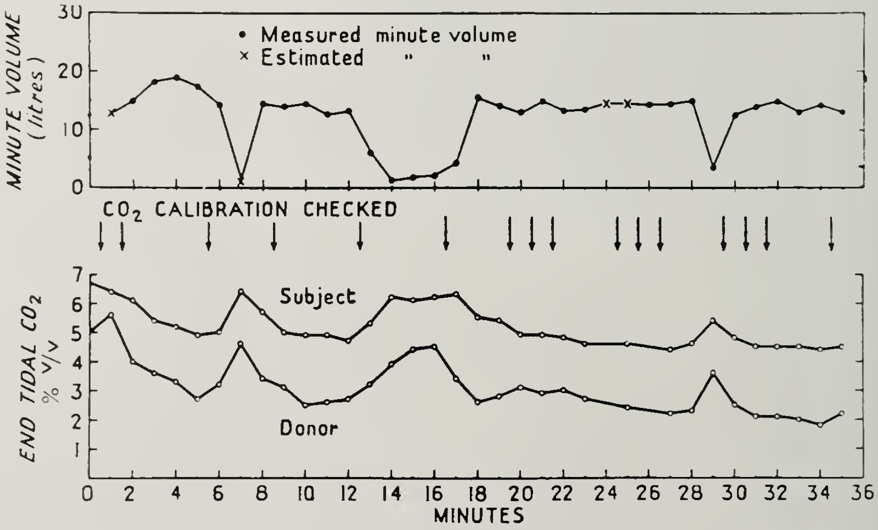

FIG. 6. Effect of exhaled air resuscitation on end tidal carbon dioxide levels of patient and rescuer. Reproduced by permission from *Lancet*,[12] page 728.

inspiration to expiration is 1:1. In the breathing of infants the value is about 50 ml. and the rate 20 inspirations per minute. In rescue breathing, double the normal tidal volume, or 1,000 ml. per inflation, is recommended with a rate of 12 per minute. In adults, the time ratio of inflation to deflation should be 1:2 except in cases of decreased lung compliance (pulmonary edema, fibrosis, increased resistance or obstruction, etc.) in order to minimize the decrease in cardiac output due to positive chest pressures.[14]

TABLE 3*

Tidal Volumes With and Without an Endotracheal Tube

Apneic Subject	Weight		Height cm.	Sex	Back-pressure Arm-lift Method with Endotracheal Tube			Chest-pressure Arm-lift Method (Supine) with Endotracheal Tube		
	Kg.	Lb.			Average, ml.	Range, ml.	No. of Breaths	Average, ml.	Range, ml.	No. of Breaths
K. M.	78.9	174	152.4	F	345	260–400	4	444	400–480	5
G. W.	45.8	101	162.6	F	785	740–820	4	465	440–500	4
M. H.	49.9	110	157.5	F	747	740–760	3	540	440–700	6
J. T.	47.6	105	152.4	F	780	750–840	3	484	440–560	5
W. J.	72.6	160	170.2	M	618	560–700	5	580	560–600	5

Apneic Subject	Back-pressure Arm-lift Method with Natural Airway and Head in Natural Position			Chest-pressure Arm-lift Method (Supine) with Natural Airway and Head in Natural Position		
	Average, ml.	Range, ml.	No. of Breaths	Average, ml.	Range, ml.	No. of Breaths
K. M.	0	0–0	5	†	†	†
G. W.	600	600–600	2	400	400–400	2
M. H.	40	0–100	6	27	0–240	9
J. T.	0	0–0	8	25	0–140	11
W. J.	12	0–100	8	75	0–560	12

* Reproduced by permission from Dr. Safar and *The New England Journal of Medicine*,[13] page 672.

† Not studied.

OBJECTIONS TO THE METHOD

The critical studies previously discussed have made untenable any objections to the method on physiologic grounds. There are, however, 2 valid objections which might well be a serious deterrent to the use of exhaled air resuscitation with some victims. The first of these is the danger of cross-infections. There is a definite danger of cross-infection in mouth-to-mouth resuscitation. The danger to the victim is, however, much greater than that to the rescuer, since the rescuer receives none of the victim's exhaled air. The danger to the victim can, of course, be disregarded on the basis of necessity. However, the danger to the rescuer might conceivably prevent the use of this method on some occasions.

Undoubtedly the principal reason for the long delay in recognizing mouth-to-mouth resuscitation as the life-saving technic is esthetic. This objection is rooted deep in our psychologic makeup, as indicated by Linden.[15] Many factors may be involved, including cosmetic factors, group prejudice, sexuality, disgust and repugnance for body excretions and secretions, and natural aversion to the apparent dead. It is significant that, immediately upon the widespread use of mouth-to-mouth resuscitation, varous types of devices appeared on the market to overcome this objection to the method.

Figure 8 shows a number of devices, both new and old, which have been used. The use of pads or handkerchiefs, simple masks, or ones such as a paper soda cup serves only one purpose

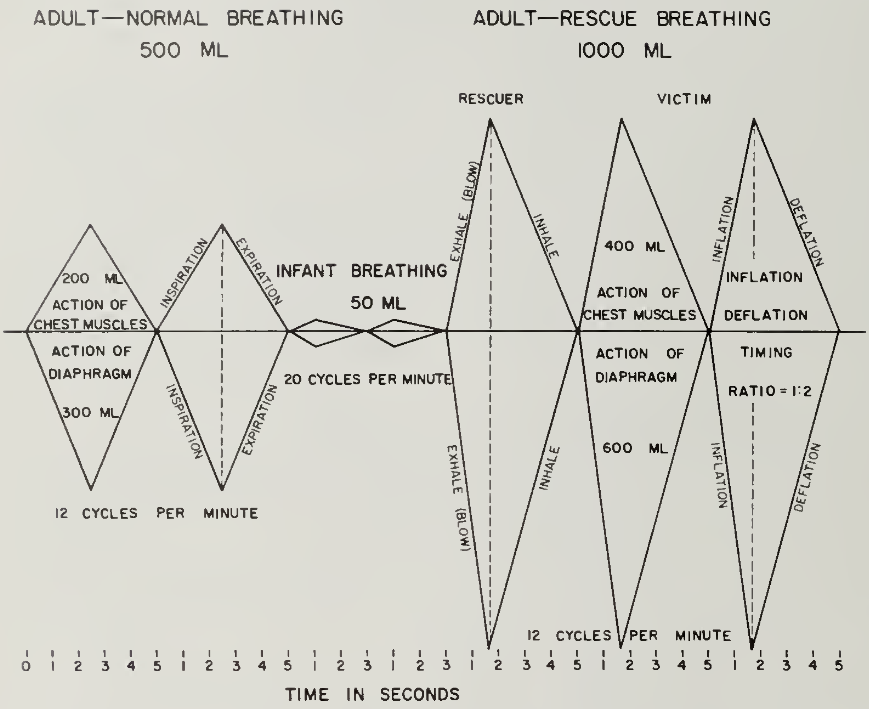
ADULT—NORMAL BREATHING
500 ML
200 ML
ACTION OF CHEST MUSCLES
ACTION OF DIAPHRAGM
300 ML
INSPIRATION
EXPIRATION
INSPIRATION
EXPIRATION
12 CYCLES PER MINUTE
INFANT BREATHING
50 ML
20 CYCLES PER MINUTE
ADULT—RESCUE BREATHING
1000 ML
RESCUER
VICTIM
EXHALE (BLOW)
INHALE
EXHALE (BLOW)
INHALE
400 ML
ACTION OF CHEST MUSCLES
ACTION OF DIAPHRAGM
600 ML
INFLATION
DEFLATION
INFLATION
DEFLATION
INFLATION
DEFLATION
TIMING
RATIO = 1:2
12 CYCLES PER MINUTE
0 1 2 3 4 5 1 2 3 4 5 1 2 3 1 2 3 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5
TIME IN SECONDS

Fig. 7. Graphic portrayal of physiologic principles of rescue breathing technic.

and that is to prevent direct contact between donor and victim.

The artificial airway, most common of which is the S-shaped tube pictured here, has 2 purposes, the prevention of direct contact and the maintenance of a patent airway. Collins[16] strongly opposes the use of this device by other than trained personnel because of the danger of serious injury to the airway and the possibility of pushing the tongue down the throat in the process of insertion.

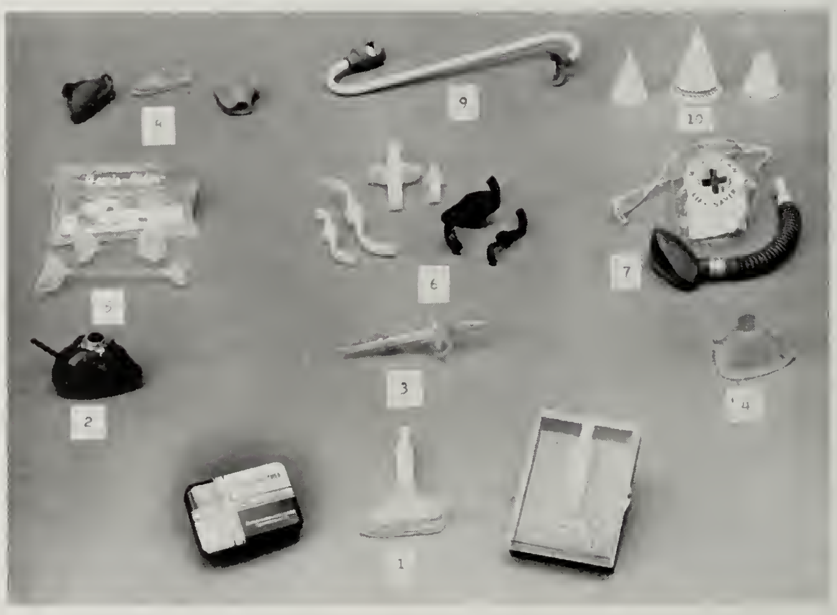
8
9
10
5
6
7
2
3
4
1

Fig. 8. Devices, new and old, for use in mouth-to-mouth resuscitation: (1) Venti-Breather; (2) surgical mask; (3) Brooks Resuscitator; (4) simple plastic mask; (5) Respir-Aider; (6) S-tubes; (7) Monaghan Life Saver; (8) folded plastic masks; (9) snorkel tube; (10) soda cup.

The Venti-Breather

A new device is the Venti-Breather (figure 9). This consists of a flexible face mask of polyvinyl chloride, especially formulated to give flexibility and durability, a mouthpiece, and a breathing tube containing a simple spring-activated plastic valve, with 2 side ports for the passage of the victim's exhaled air to the atmosphere.

Figure 10 shows a Venti-Breather cut in half to show the operation of the valve. The view on the right shows the position of the valve

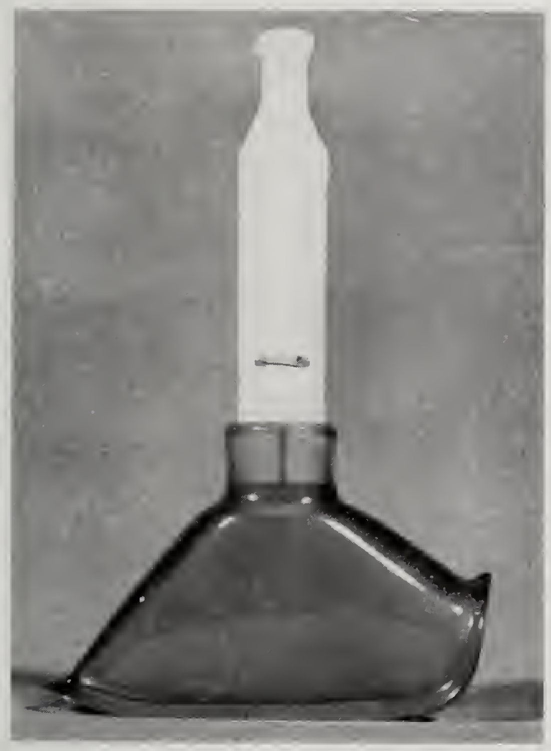

Fig. 9. Venti-Breather.

during exhalation by the victim; the side ports are open and the opening to the mouthpiece is closed by the tension of the spring. The view on the left shows how the rescuer's breath pushes the valve down and closes the side ports to permit inflation of the victim's lungs.

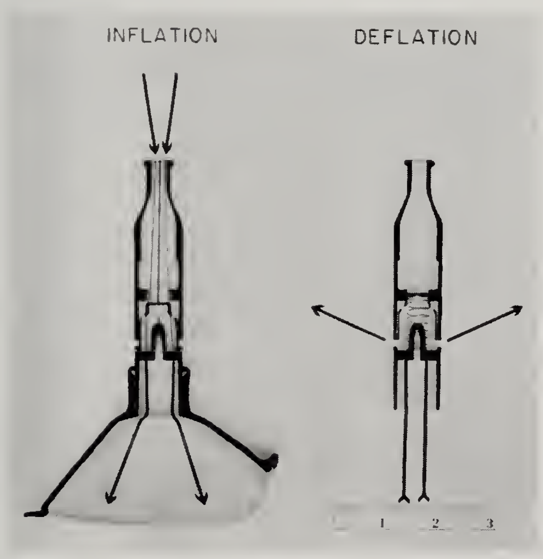

Fig. 10. Cross-section of Venti-Breather to show operation of valve.

Figure 11 shows positioning of the mask on the face of the victim. The head is held in the position prescribed for mouth-to-mouth breathing. The mask is held firmly over the victim's nose and mouth and the lower jaw is held upward and forward. The rescuer trained in its use can with his other hand stop bleeding or apply other emergency measures.

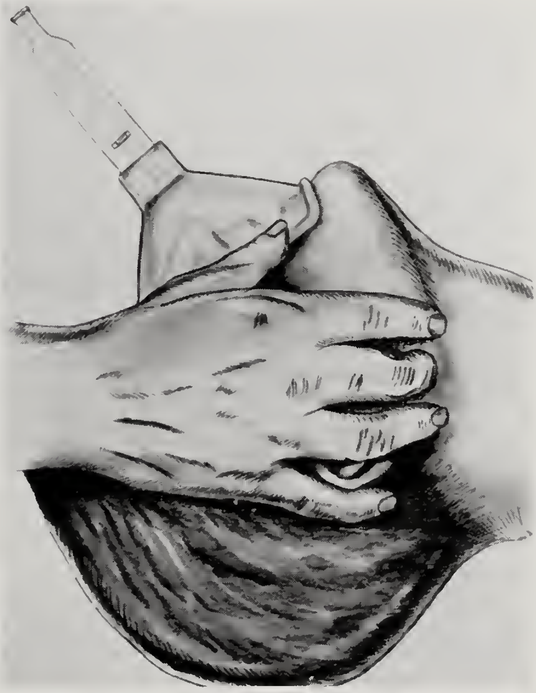

Fig. 11. Positioning of Venti-Breather on face of victim.

The Venti-Breather has been evaluated by Lee et al.[17] The model tested was found to be adequate for ventilating purposes as measured by arterial oxygen and CO_2 studies. The average inflation pressure was 12 mm. Hg and the average deflation pressure 0. It showed no detectable damage or alteration in operating efficiency after 30 hours of continuous operation.

Conclusions

On the basis of all available experimental evidence, exhaled air resuscitation is far superior

(*Continued on page 715*)

Spontaneous Pneumothorax*

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Pneumothorax is a frequently occurring clinical entity. Because of a low index of suspicion smaller degrees of collapse are frequently overlooked and diagnosis unnecessarily delayed in larger degrees of collapse. Treatment is usually simple and can be performed by the majority of physicians in the practice of general or internal medicine. The services of a surgeon or medical chest physician are rarely required. It is the purpose of this paper to give the general physician a better understanding of pneumothorax and its management.

Pneumothorax literally means air in the thorax. However, in practice this term refers to air in the pleural space. Air may enter from without, as in a puncture wound to the chest. More commonly it occurs from within when air escapes from any segment of the respiratory tract into the pleural space; however, the site of air escape is usually peripheral. The leakage of air causes the normally negative intrapleural pressure to rise and exceed the intrapulmonary pressure resulting in collapse of the lung.

It is now generally accepted that the most frequent cause of spontaneous pneumothorax is the rupture into the pleural space of one or more pulmonary bullae or subpleural blebs. Less frequently pneumomediastinum may cause rupture of the mediastinal pleura with subsequent pneumothorax. In the latter instance the pneumothorax is more often left-sided.

The etiology of these air-containing vesicles is varied. The most common mechanism appears to be bronchial obstruction with impedance of alveolar outflow with a subsequent increase in intra-alveolar pressure and gradual formation of an air-filled, thin-walled vesicle. The obstruction to outflow may be due to inflammatory edema, scar tissue, valves, carcinoma, or mucous plugs. Enlargement of these air-containing sacs can frequently be demonstrated by reducing the atmospheric pressure, lending support to the concept that entrance of air is permitted but egress hampered.

Pleural adhesions have been reported to produce subpleural vesicles at the site of their insertion into the visceral pleura. It is speculated that during severe respiratory effort the adhesions pull on the vesicles and may cause rupture. This postulate does not have firm experimental support.

Congenital cystic disease, in which the cysts are lined with bronchial epithelium, and have a bronchial communication, are a rare cause of air vesicles. These may be suspected when there is a history of dyspnea, cough, hemoptysis and repeated infections in childhood and adolescence.

Rupture of an air-filled vesicle may not lead to pneumothorax in a direct fashion. Instead, the interstitial air may enter the pulmonary perivascular spaces and following the path of least resistance enter the mediastinum. As the mediastinal pressure increases the mediastinal parietal pleura may rupture, causing a pneumothorax.

At times spontaneous pneumothorax occurs without any demonstrable pulmonary or pleural abnormality even at surgical exploration. These cases may represent spontaneous rupture of weakened pleura.

There are 3 types of pneumothorax. The first type, and most common, is the closed pneumothorax. In this variety, the opening which allowed the escape of air closes as the lung collapses. After the initial escape of air into the pleural cavity there is no further leakage. The second variety is designated an open pneumothorax and is essentially a bronchopleural fistula. Air both enters and leaves the pleural space. Tension pneumothorax is the third and most serious variety. A "valve-like" action is offered by the pleura which allows air to enter but not leave the pleural cavity. This causes tremendous increase in intrapleural pressure and can result in serious mediastinal shift and cardiac compression.

The measurement of intrapleural pressures (figure 1) with a pneumothorax machine can help elucidate the dynamics of the pneumothorax. However, these studies are rarely necessary in the management of the disease.

By far the majority of episodes of pneumothorax occur in young male adults in otherwise good health and with no previous notable history of pulmonary diseases. In addition, the majority are never troubled again once reëxpansion occurs. However, the interesting and important aspect to consider is the pneumothorax which is the presenting symptom of some underlying pulmonary or systemic disease. Thus, congenital cystic disease, generalized obstructive emphysema, staphylococcal pneumonitis, bronchogenic carcinoma, scleroderma, eosinophilic granuloma, and bronchial foreign body may present as pneumothorax. In view of this it is essential, especially in the older patient, to screen all cases of pneumothorax carefully for some underlying more serious disease. This is most important if the underlying disease is of a remedial type.

Most episodes of pneumothorax produce symptoms. The most common symptom is pain. This usually has an abrupt onset, is unilateral, pleuritic, and frequently anterior in location. Occasionally radiation to the neck, back and abdomen occurs. Radiation toward the sternum frequently suggests the presence of pneumomediastinum. There is no relation of the pain to the degree of collapse.

Dyspnea, especially on exertion, frequently follows the onset of pain. Its severity is related to the degree of collapse and the functional ability of the uncollapsed lung.

A nonproductive cough is a less common symptom and is probably related to pleural irritation. It is usually not severe unless under-

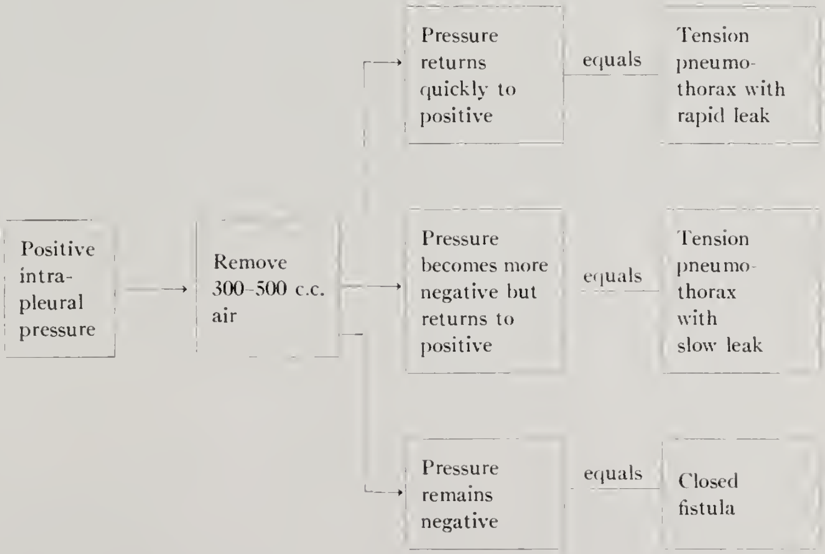
Positive intra-pleural pressure
Remove 300–500 c.c. air
Pressure returns quickly to positive
equals
Tension pneumothorax with rapid leak
Pressure becomes more negative but returns to positive
equals
Tension pneumothorax with slow leak
Pressure remains negative
equals
Closed fistula

FIG. 1. Diagram of intrapleural pressures (modified from STOREY, P. B., AND BERTE, S. S.: GP, 1955, **7**, 62).

lying lung disease is present. Occasionally a small amount of blood-stained mucus may be coughed up, probably arising from the lung at the site of rupture. Other more rare symptoms include an awareness of cyanosis, a feeling of constriction or vague sensation within the chest, a bubbling noise, orthopnea and diaphoresis. Finally, there may be no symptoms at all, resulting in the so-called "surprise pneumothorax" seen on a chest film taken for some other purpose.

The onset of symptoms is usually not related to any particular exertion. Most cases occur during the course of normal or mild activity. In addition, high altitudes do not seem to predispose to pneumothorax. However, should one occur at high altitude, dyspnea may be more pronounced due to a greater degree of collapse when atmospheric pressure is decreased.

The general physical findings usually depend on both the degree of collapse and the state of the collapsed as well as uninvolved lung. In general, cyanosis is usually mild unless underlying pulmonary disease of a severe nature is present. Shock is absent unless a pleural vessel has bled profusely or unless compression of the heart and great vessels by mediastinal air has taken place. The degree of dyspnea depends on the same factors as does cyanosis. In the presence of pneumomediastinum subcutaneous emphysema may be present, and although it may involve other areas it is most often present in the neck and upper thorax. The temperature is not usually elevated above 1°F unless infection is present.

Chest findings depend on the amount of air in the pleural space. The affected side may show decreased motion, intercostal bulging, diminished tactile fremitus, hyperresonance, diminished breath sounds and, rarely, the coin sound. In addition, there may be evidence of mediastinal shift as manifested by displacement of the trachea and apical impulse away from the involved side. Signs of fluid in the pleural space may be present and should be especially sought if shock is present. The presence of Hamman's sign may be the first clue to mediastinal emphysema. This is a bizarre crunching noise heard over the precordium, mainly during systole but also during diastole. The patient's position may have to be shifted several ways, especially into the left lateral decubitus, in order to elicit the sound.

Laboratory data are usually not remarkable except as related to any associated or underlying disease. The chest film is the definitive diagnostic tool. One usually sees a dark, homogenous area without bronchovascular markings, adjacent to which the more radiopaque compressed lung border can be seen. In addition, one may note pleural adhesions, mediastinal shift, and mediastinal air or blebs on the surface of the collapsed lung. Pleural fluid is usually absent or present in small amount, rarely above the diaphragmatic level. When the larger amounts of fluid are seen, the fluid usually represents blood. Pulmonary infiltration may be suspected during collapse and verified with reëxpansion. A slight degree of pneumothorax may be visualized only with a film taken in full expiration. This maneuver collapses the lung, thereby increasing the area of pneumothorax and also the degree of opacity along the lung border. In patients with vague, unexplained chest pains this view may afford a diagnosis of a small pneumothorax and solve a diagnostic dilemma.

Since the most common symptom is chest pain, pneumothorax may be confused with other intrathoracic diseases, such as myocardial infarction and pulmonary embolism. In pneumothorax the electrocardiogram is usually normal but may show some S-T and T-wave depression. Repeated chest films and other common auxiliary means used to diagnose myocardial and pulmonary infarction will usually give a correct diagnosis.

In general, most episodes of pneumothorax, especially when properly treated, resolve without complications. However, anyone responsible for the care of a patient with pneumothorax must be aware of its complications in order to prevent unnecessary morbidity and mortality.

Bloody effusion accompanying pneumothorax may be due to bleeding from a torn pleural adhesion or from the site of lung rupture. Bleeding from the former site is usually more profuse. The significance of the bleeding is in the development of hemorrhagic shock and fibrothorax. The complication of shock from blood loss needs no further discussion. However, surgical intervention may be required if bleeding persists. The deposition of fibrin on the pleural surface results initially in the formation of a pleural "peel" and eventually in the development of fibrothorax. Both these conditions, fibrothorax being only a more advanced stage of pleural "peel," interfere with reëxpansion and decrease the mobility of the underlying lung and chest wall with loss of ventilatory ability.

A second complication of pneumothorax is failure of the collapsed lung to reëxpand. As noted above, this may be a consequence of a neglected hemothorax. In addition, this complication may be the result of a persistent bronchopleural fistula or of pulmonary infection or accumulated secretions with blockage of the smaller bronchioles. A persistent bronchopleural fistula may be diagnosed by measurement of intrapleural pressures or by the measurement of intrapleural CO_2, O_2 and nitrogen. These gases approach the concentration found in the alveoli in the presence of a bronchopleural fistula. In clinical practice the use of pleural gas analysis is rarely necessary for diagnosis. Infection and bronchial obstruction must be detected and treated by appropriate methods as one would any similar pulmonary infection not complicated by a pneumothorax.

Empyema is an unusual complication of pneumothorax. Its rarity, even in the absence of antibiotic coverage, may be explained by the usually minute size of the site of leakage and the natural sterility of the peripheral bronchioles and alveoli. Slow expansion increases the incidence of empyema, and properly used antibiotics diminish its frequency.

The final complication to be considered is pneumomediastinum. Interstitial emphysema may dissect along the perivascular spaces and enter the mediastinum. Dangerous compression of the heart and great vessels as well as glottal obstruction may result. These complications of pneumomediastinum are rare but must be considered.

Treatment of spontaneous pneumothorax has changed as our concepts of its etiology and course have been clarified. When pulmonary tuberculosis was considered to be the usual cause of spontaneous pneumothorax, treatment consisted of prolonged periods of confinement in a tuberculosis sanatorium. As it became generally accepted that active tuberculosis was only rarely a cause of pneumothorax, the patient was freed from contact with tuberculous patients, but prolonged periods of rest were still the treatment of choice. Financial, emotional and pulmonary invalidism were not infrequent consequences of this well-intentioned but misdirected therapy. It is our belief that the treatment of pneumothorax must take into account its etiology, frequency of occurrence, the patient's pulmonary reserve, complications, and usual course.

As stated above, most episodes of spontaneous pneumothorax are due to rupture of a thin, air-filled vesicle in an otherwise healthy young adult. Spontaneous reëxpansion occurs in the absence of a persistent air leak at the rate of about 1.5 per cent per day. A 30 per cent collapse would therefore take about 20 days to completely reëxpand. In addition, most of the complications stated above occur more frequently when reëxpansion is slow. The physician must also consider the financial loss caused by such a prolonged illness.

In all uncomplicated cases of spontaneous pneumothorax large enough (usually 20 to 30 per cent collapse) for a trocar and catheter to be introduced into the pleural space, closed, intercostal water-seal drainage is the treatment of choice. This is performed at the patient's bedside and requires one physician and an assistant. The site of tube insertion varies with the location of pneumothorax but is usually the second or third anterior intercostal space in the midclavicular line. While infiltrating the area, the thickness of the chest wall should be measured so that the catheter may be adjusted to have its proximal fenestration lying only a short distance within the pleural space. The trocar is then inserted in a way to avoid the lower border of the upper rib where the neurovascular supply courses. When the pleural space is entered one feels a "give." In addition, one can use the previously measured chest-wall thickness to assist in localizing the tip of the trocar. When the pleural space has been entered, the rubber catheter, its distal end clamped, is inserted through the side arm of the trocar as the stylus is removed. After the catheter is in place the trocar is carefully withdrawn from the chest wall until the catheter can be seen. At this point a second clamp is applied to this newly visualized portion of the catheter and the distal clamp released to allow complete removal of the trocar. With this completed, the tube from the previously prepared water-seal sterile drainage bottle is connected to the catheter. The end of this tube is about 1 to 2 cm. below the water surface. A suture is placed in the skin next to the site at which the catheter enters the chest. The suture material is then made fast to the catheter to prevent it from slipping out of the chest. Vasoline gauze is applied to the trocar site to prevent the entrance of air. By this time the patient usually is more comfortable than at the start of the procedure and one can complete the final steps. All sites of rubber to glass connections are taped securely to prevent accidental disconnection. In addition, the water-seal jug is taped securely to the floor to prevent the uninformed from lifting it above the patient thereby permitting fluid to enter the pleural space. Finally, both clamps are left attached to the patient's sheets to be used to clamp the catheter should the need arise.

If the apparatus is functioning properly bubbles will be noted in the water, especially on expiration or coughing. When the lung is almost completely reëxpanded the bubbling may be absent, but fluctuations of the fluid level in the tube will be noted with respiration.

When the fluid level ceases to fluctuate and chest films, including an expiratory view, reveal complete reëxpansion, the catheter is doubly clamped but left in place for 24 to 48 hours. At this point, if repeat films, as above, reveal persistent complete reëxpansion, the suture is cut and the patient asked to expire completely and the catheter withdrawn slowly but steadily. The area is then covered with a vasoline gauze dressing for 24 hours, after which time a dry dressing may be applied. No further sutures are needed.

The patient during the period of drainage is usually confined to bed or a wheelchair with the water-seal flask attached to the floor. If movement is required for X-rays or other purposes, the rubber catheter is always doubly clamped. When the tube stops fluctuating prior to reëxpansion it usually means it is "plugged" or its fenestrations are occluded by the lung or chest wall. Gentle manipulation or the introduction of a small amount of sterile saline into the catheter will usually reëstablish function.

If reëxpansion is not nearly complete in 3 days when water-seal drainage is used, especially if there is a mottled pulmonary infiltrate, tracheal aspiration or bronchoscopy is indicated. Lack of reëxpansion after 7 days of water-seal drainage is usually an indication for open thoracotomy without further delay.

Antibiotics are used only if actual infection is present. A temperature greater than 1°F above normal actually is an indication for full-dose antibiotic treatment in the uncomplicated pneumothorax. Expectorants are given routinely and fluids forced to assist in keeping bronchial secretions thin.

More than minimal pleural effusion is an indication for a diagnostic thoracentesis. If the fluid is bloody it should be removed at the time of the tap. If the fluid clots one can give the fibrinolytic enzymes, streptokinase and streptodornase, a trial. Should a pleural "peel" prevent reëxpansion or if fibrothorax is present when the patient is first seen, early decortication is needed to promote expansion of the lung in the first instance and to prevent loss of pulmonary function in either circumstance.

In about 20 to 30 per cent of the patients seen, recurrent episodes of collapse are a problem. The majority of these recurrences are seen in the first 2 years. Each patient needs individual care. However, certain general statements can be made. Since most episodes are due to rupture of subpleural vesicles, which most frequently involve the upper lobes, surgical excision of any remaining vesicles should be considered. Some authorities consider surgical therapy in a patient with an initial spontaneous pneumothorax when there is an obvious underlying pulmonary abnormality responsible for the pneumothorax. In any young adult the occurrence of a second or third pneumothorax is an indication for open thoracotomy. This is especially true if collapse has occurred on both sides, singly or simultaneously. If an open surgical procedure is contraindicated for some reason, one may attempt to produce an obliterative "chemical" pleuritis by the introduction of an irritating substance into the pleural space. This procedure may be extremely painful.

Empyema requires surgical drainage as well as the use of appropriate antibiotics. Persistent bronchopleural fistula requires surgical resection.

Most cases of uncomplicated pneumothorax treated with water-seal drainage are discharged from the hospital in about 4 to 7 days. At some time prior to discharge the patient should be given a simple but adequate understanding of his condition. He should be told the diagnosis and be able to convey this information to other physicians. In addition, he should be instructed to seek medical advice immediately if symptoms recur. The patient is gradually returned to his usual activities without restriction. The usual procedures to prevent or ameliorate chronic and acute bronchitis and asthmatic attacks are instituted with vigor.

SUMMARY

Spontaneous pneumothorax usually occurs in otherwise healthy young adults. Occasionally it is the presenting sign of some serious underlying pulmonary or systemic disease. It is most frequently due to rupture of a thin-walled subpleural bleb or bulla.

In most cases the treatment of choice is the use of intercostal water-seal drainage. This method considerably diminishes the complications and the period of incapacity.

Most cases can be handled by a physician in the practice of general or internal medicine. When complications arise, consultation with a pulmonary specialist is mandatory.

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(*Continued on page 716*)

Acute Extrapyramidal Syndromes Following the Use of Phenothiazine Derivatives

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As tends to occur with the employment of any potent drug, the use of the phenothiazines and their derivatives have led to the development of side-effects and toxic manifestations. Most of these are well known, consisting of postural hypotension, jaundice, dermatitis, seizures, and bone marrow depression. Shortly after the introduction of the phenothiazines there occurred the development of a parkinsonian syndrome in patients who had been under long-term treatment at high dosage levels. This was a complication that was slow in developing and did so in only a small percentage of the patients treated.[1, 2] However, with the newer analogues the incidence of these extrapyramidal syndromes rose steadily until from 12 to 64 per cent of patients so treated developed symptoms as a side-effect.[2, 3, 4]

The extrapyramidal manifestations following therapy with the phenothiazines have been divided into 3 categories.[2, 5] The most common type resembles the usual picture seen in Parkinson's disease and consists of rigidity, tremor, and increased salivation. The second type is characterized by generalized feelings of restlessness, inability to sit down, and the need to "pace the floor," referred to as akathisia. The purpose of this report is to focus attention on the third type of reaction, the dystonias or dyskinesias, a group of acute reactions not as well known or as common as the first two, but just as distressing to the patient and his physician until they are recognized. This group consists of muscle contractions and involuntary movements that may involve any part of the body musculature, most commonly the head and neck,[6] and that often produce bizarre postural attitudes.[7]

The following case reports consist of acute extrapyramidal reactions (dystonias or dyskinesias) seen in patients receiving chlorpromazine (Thorazine), prochlorperazine (Compazine), and trifluoperazine (Stelazine).

REPORT OF CASES

Case 1. H. McA., a 51-year-old white man, had been taking promazine and prochlorperazine. These were discontinued, and he was started on trifluoperazine, 20 mg. daily. During the next few days he developed loss of associated movements, masked facies, cogwheel rigidity, tightness of the muscles of the neck, and difficulty in speaking because of thickness of the tongue. Trifluoperazine was discontinued. There was immediate relief of the speech difficulty and improvement in the other symptoms following the intramuscular injection of 50 mg. of diphenhydramine (Benadryl).

Case 2. A. J., a 30-year-old man, was taking prochlorperazine, 20 mg. daily for 5 days. On the fifth day he suddenly developed difficulty in breathing and speak ing, swelling of the tongue, torticollis, and bizarre movements of the neck, face and head, the latter lasting 2 days. Symptoms disappeared approximately 12 hours after the prochlorperazine was discontinued.

Case 3. F. N., a 44-year-old white man, had received prochlorperazine, 45 mg. by parenteral routes over a 3-day period for delirium tremens. He suddenly developed episodes, intermittent in nature and lasting approximately 10 minutes, characterized by hyperextension of the head, facial grimacing, and facial spasm accompanied by a peculiar vocal noise. During these episodes he was unable to speak, but there was no disturbance of consciousness, and when the episodes ended he was able to give a detailed accurate description of all events transpiring during their occurrence. There was dramatic relief from symptoms within a short period of time following the injection of 8.0 c.c. of paraldehyde intramuscularly.

Case 4. G. K., a 30-year-old white man, had taken 100 mg. of trifluoperazine in a suicidal attempt. On the second hospital day he complained of intermittent muscle spasms of the face, neck, left foot and ankle, the latter being most prominent. He was seen by the ward neurologist during 3 such episodes approximately 2 hours apart, during which examination revealed no significant neurologic abnormality and no evidence of muscle spasm. The patient showed marked anxiety and a good deal of restlessness. Approximately one-half hour after the third episode the patient developed an acute dystonic reaction with spasm of the facial muscles and lower extremities accompanied by protrusion of the tongue. There was rapid relief from symptoms following the intravenous injection of 0.5 Gm. of caffeine sodium benzoate.

Case 5. A. V., a 39-year-old white man who had been receiving chlorpromazine, 50 mg. every 4 hours, was started on trifluoperazine 30 mg. daily. Following 1 day of trifluoperazine medication the patient began to complain of neck pain. On the second day he developed intermittent episodes of facial spasm, torticollis, thick tongue, and marked restlessness. Diphenhydramine, 50 mg. intravenously, resulted in marked relief of symptoms.

Case 6. W. Z., a 36-year-old Negro, had been drinking heavily until 4 days prior to admission. He stopped drinking because of nausea and epigastric distress. For 2 days prior to admission he received chlorpromazine, 600 mg. On the second day he developed postural dizziness, slurred speech, turning of the head and body, and continuous moving of the extremities. He was hospitalized the following day, at which time he experienced intermittent episodes characterized by acute muscle spasms with marked torsion spasm of the head and neck, opisthotonus and turning of the body to one side, facial spasm with some difficulty in opening the jaw, and inability to protrude the tongue. Between episodes he showed marked athetoid movements of the extremities. There was complete relief from symptoms following intravenous diphenhydramine, 50 mg.

Discussion

There appears to be 3 types of extrapyramidal dysfunction associated with the use of phenothiazines: (1) parkinsonism, (2) akathisia, and (3) dystonia or dyskinesia. One can further group these reactions according to their time of appearance after the patient has been started on medication. The parkinsonism appears after a rather prolonged drug exposure and seems to be related directly to the dosage given.[4] The akathisia and dyskinesia may appear within 4 hours from the time of first exposure to the drug or may be delayed for 5 or 6 days.[2, 4]

The dystonic reactions and akathisia are not as well known, and their ease of treatment may not be appreciated. In fact, since psychiatric disorders are common in this group of patients, the diagnosis of hysteria or a catatonic state may often be made and an increase in the tranquilizing drugs ordered.[8]

The multiplicity of extrapyramidal signs and symptoms that may be found vary in severity and in the site of the disturbance. The most subjective and often the one first noticed may be the feeling of tension, tightness, and the need to be constantly moving, best termed akathisia. More objective are the frequently seen oculogyric crises, torticollis, retrocollis, trismus, slurring of speech, protrusion of the tongue, opisthotonus, difficulty in swallowing, and athetoid movements of the extremities. All of these (other than the akathisia) occur in more or less brief spasmodic episodes, with normal muscle function maintained between these episodes. The patients remain conscious throughout the episodes and frequently show a great deal of anxiety.[9, 10]

In a series of acute extrapyramidal reactions reported by Cain[2] the hospital admission diagnoses were (1) tetanus (58 per cent), (2) encephalitis (16 per cent), (3) meningitis (8 per cent), (4) rabies (3 per cent), (5) botulism (3 per cent), and (6) deferred (8 per cent). Idiopathic parkinsonism, atypical epilepsy, schizophrenia and bulbar poliomyelitis may be added to the above list. In the differentiation of this condition, the intact sensorium, the acute onset of severe and unusual extrapyramidal signs, the paroxysmal nature of the symptoms with relatively no residual between these paroxysms (except perhaps a marked degree of anxiety and often the persistence of the restlessness and feeling of tension), the absence of neurologic signs other than those of the extrapyramidal system, the absence of fever, and the history of the ingestion of a phenothiazine compound are of great importance. At times if the clinical picture leads one to suspect this diagnosis and no history of phenothiazine medication can be obtained, the urine may be examined for phenothiazine metabolites by the test described by Vesell.[11]

Acute extrapyramidal reactions have been observed following the use of such phenothiazine derivatives as chlorpromazine (Thorazine), promazine (Sparine), prochlorperazine (Compazine), trifluoperazine (Stelazine), perphenazine (Trilafon), mepazine (Pacatal), triflupromazine (Vesprin), and thiopropazate (Dartal). In a series of 39 cases reported by Cain (1958–1960) the reactions were due to prochlorperazine, in 23 cases, perphenazine in 11 cases, chlorpromazine in 1 case, trifluoperazine in 1 case, and promazine in 1 case. The high incidence of rereactions due to prochlorperazine was probably due to its more widespread use.

Treatment

The duration of symptoms without therapy other than discontinuing the drug has usually been less than 3 days, with most patients obtaining relief in less than 12 hours.[2] The possibility of the precipitation of an irreversible disorder in a particularly susceptible individual should always be kept in mind. Various investigators have given no therapy other than to decrease or stop the phenothiazine. Others have noticed a decrease in the extrapyramidal manifestations upon shifting from parenteral to oral medications[4] (most likely due to decreased effective dosage). However, if the reaction is severe and if the patient's anxiety is marked, as it has been in most reported series, the physician usually feels compelled to offer some relief to the patient. In patients receiving the phenothiazine for a short-term illness, or in psychiatric patients, immediate relief from symptoms has been obtained through the use of the parenteral barbiturates (amobarbital, phenobarbital, pentobarbital) in sufficient dosage to induce sleep, paraldehyde (8 c.c. intramuscularly), caffeine sodium benzoate (0.5 Gm. by intravenous route) or diphenhydramine (Benadryl), 50 mg. by I.V. injection.[2, 4, 5, 6, 10] Patients showing residual symptoms following therapy can be handled effectively through the use of oral antiparkinsonian drugs such as procyclidine hydrochloride (Kemadrin), benztropine methanesulfonate (Cogentin), trihexyphenidyl (Artane), biperiden (Akineton), and cycrimine (Pagitane) in the usual dosage for several days.[2, 4, 6, 10] In long-term psychiatric patients treated in the above manner it is frequently not necessary to discontinue the drug. In severe reactions the remainder of the day's dosage may be omitted and the drug restarted the following day.[4]

Summary

Three types of acute extrapyramidal syndromes have been observed following the use of the phenothiazine derivatives. In this report attention is centered on the least common of the 3 types, the dystonias or dyskinesias, a group of reactions characterized by muscle contractions and involuntary movements that may involve any part of the body musculature.

Six case reports are presented in which dystonic reactions were seen in patients re-

ceiving chlorpromazine (Thorazine), prochlorperazine (Compazine), and trifluoperazine (Stelazine). These reactions may appear within 4 hours from the time of first exposure to the drug, or they may be delayed for 5 or 6 days. A variety of extrapyramidal signs and symptoms may be seen including oculogyric crises, torticollis, retrocollis, trismus, difficulty in swallowing, opisthotonus, and athetoid movements of the extremities.

Erroneous diagnoses such as tetanus, encephalitis, meningitis, rabies, botulism and schizophrenia are frequently made.

Reactions have been seen following the use of such phenothiazine derivatives as chlorpromazine (Thorazine), promazine (Sparine), prochlorperazine (Compazine), trifluoperazine (Stelazine), perphenazine (Trilafon), mepazine (Pacatal), triflupromazine (Vesprin), and thiopropazate (Dartal). From the therapeutic standpoint one can give no therapy other than decreasing or stopping the drug. Shifting from parenteral to oral medication may in some instances result in relief of symptoms. In severe reactions with marked anxiety immediate relief of symptoms can be obtained through the use of parenteral barbiturates (amobarbital, phenobarbital, pentobarbital), caffeine sodium benzoate by the intravenous route, paraldehyde intramuscularly, or diphenhydramine (Benadryl) by intravenous injection. Residual symptoms can be handled effectively through the use of antiparkinsonian drugs.

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The Course of Histiocytosis X in an Adult Negro

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IN 1957 WILLIAMS ET AL[1] in writing of pulmonary and osseous eosinophilic granuloma said that the patient was usually a Caucasian man. In the recent and exhaustive edition of his monograph, "Lipoidoses," Thannhauser[2] states: "The Schüller-Christian syndrome is observed in white people. It occurs mostly in children and infants; cases in adults are rare." It is therefore deemed worthwhile to report the following case of histiocytosis X in an adult Negro.

REPORT OF CASE

The patient, a 37-year-old Negro, presented himself on November 26, 1956 at a hospital because of swelling and tenderness in the back of his head. His illness had started 1 year previously, when he began to suffer from intermittent, severe headaches. About 6 months later he noted a swelling in the back of his scalp. At first the swelling gradually increased in size but later spontaneously receded. Two days prior to admission the occipital area became painful and greatly swollen. He also complained of vague pain in the right hip and thigh of unknown duration.

The only positive item in the past history was a diagnosis of diabetes mellitus, well controlled, of 15 months' duration. Because of poor family circumstances the patient did not have any schooling and so was shy about his inability to write. There was no gross mental retardation. He worked at unloading building material and as truck driver.

At the other hospital an abscess of the occipital region of the scalp with surrounding cellulitis was found. Incision and drainage were performed, and the patient received antibiotic therapy. A bone survey disclosed lytic lesions in the skull and right ilium. On December 5, 1956 the patient was transferred to the Mt. Alto Hospital with the tentative diagnosis of eosinophilic granuloma.

The entire back of the scalp was found to be swollen with 3 more or less distinct masses varying in size from 4 to 7 cm. in diameter and protruding for about 2 cm. The periphery of these masses was moderately firm; their centers showed the recent incisions from which a purulent material was draining. Each side of the neck contained several large (1.5 to 2.5 cm.), fairly firm, nontender lymph nodes. The liver and spleen were not palpable. The patient was well nourished and in good general condition.

The roentgenogram of the chest on December 10, 1956 (figure 1-A) showed the heart to be normal in size and shape. The upper half of each lung field was emphysematous and diffusely traversed by relatively short, curved linear densities. In addition, 2 thicker (2 mm. wide) and longer curved, bandshaped densities were present in the left apical and infraclavicular regions. The left hilar shadow was only slightly larger than on the film of December 1945, taken at the time of his discharge from the Army.

The roentgenograms of the skull (figure 2) disclosed practically complete destruction of the occipital and the inferoposterior segments of both parietal bones. The margins were sharply defined and scalloped. The protruding soft tissue masses at the occiput were clearly depicted. The right ilium showed a 3 cm., sharply demarcated area of bone destruction in the supra-acetabular region and a 1 cm. radiolucency below the medial aspect of the crest. All the laboratory examinations, with the exception of an elevated sedimentation rate, were within normal limits. Biopsies from the occipital tumor and from a left cervical lymph node disclosed granulomatous lesions composed of large mononuclear cells, multiple vacuolated cells, multinucleated giant cells and leukocytes, predominantly eosinophils. In addition, the lymph node exhibited hyperplasia of the reticuloendothelial elements. Both specimens contained nonspecific inflammatory infiltrations. The histologic diagnosis was eosinophilic granuloma, a type of histiocytosis X.

Under penicillin therapy the incisional wounds healed, and 35 units of NPH insulin daily readily controlled his diabetes mellitus. On January 23, 1957 the patient was started on roentgen irradiation, alternating daily in the right and left lateral occipital portals. The factors were: 250 kvp, 50 cm. TSD, HVL 1.7 mm. Cu, 15 x 10 cm. fields. Soon thereafter 15 x 8 cm. right cervical and 8 x 12 cm. left cervical portals were added. On February 28, 1957 he completed his course of irradiation, having received a total occipital tumor dose of approximately 2,200 r and 1,300 r to the cervical lymph nodes bilaterally. The nodes completely disappeared, and the protruding occipital masses showed a 50 per cent regression. The skull films of July 18, 1957 showed beginning recalcification. A new scalloped 4 x 4 cm. radiolucency was discovered involving the neck of the left scapula. The roentgenograms of January 22, 1958 disclosed destruction of the tip of the right acromial process and the posterior segment of the right fifth rib.

The patient did not keep his appointments and did not show up until August, 1958, when he was hospitalized for severe pain in the right thigh. A 9 x 3 cm. scalloped osteolytic area was found in the middle of the right femoral shaft and several additional radiolucencies in both scapulae. The patient received 1,450 r to the mid femur and 1,800 r to each scapula, with complete relief of symptoms. In December, 1958 and again in March, 1959 the patient had episodes of pneumonia. In July, 1959 he was hospitalized again because of pain in the right scrotum radiating to the groin, of 1 week's duration. He had lost 15 pounds in the preceding 2 months. Intravenous urography disclosed right hydronephrosis and right hydro-ureter down to the L5 level. The liver was enlarged, and a 6 cm. firm mass was found in the right lower quadrant. A dose of 1,000 r was administered to the mass, with prompt disappearance of the mass and relief of the hydronephrosis. In September a 7 x 5 cm. mass appeared in the right submandibular area. Incision and drainage of the latter disclosed only a small sterile necrotic abscess in the center of the mass. Under roentgen irradiation (1,400 r) the submandibular mass dramatically regressed but as rapidly recurred and again disappeared after a similar dose. Between October 26 and November 23, 1959 the patient also received 1,700 r to the pancreatic area. This irradiation was given with the hope of ameliorating his diabetes mellitus, which had only recently become refractory to treatment. The urine continued to show 3+ to 4+ sugar even on 90 units of insulin daily. The assumption was that the pancreas might be involved by the histiocytosis X. However, no immediate improvement in the diabetes was noted. The opportunity to study a possible delayed effect was lost. On November 26, 1959 the patient developed left-sided pneumothorax, followed by interstitial and subcutaneous

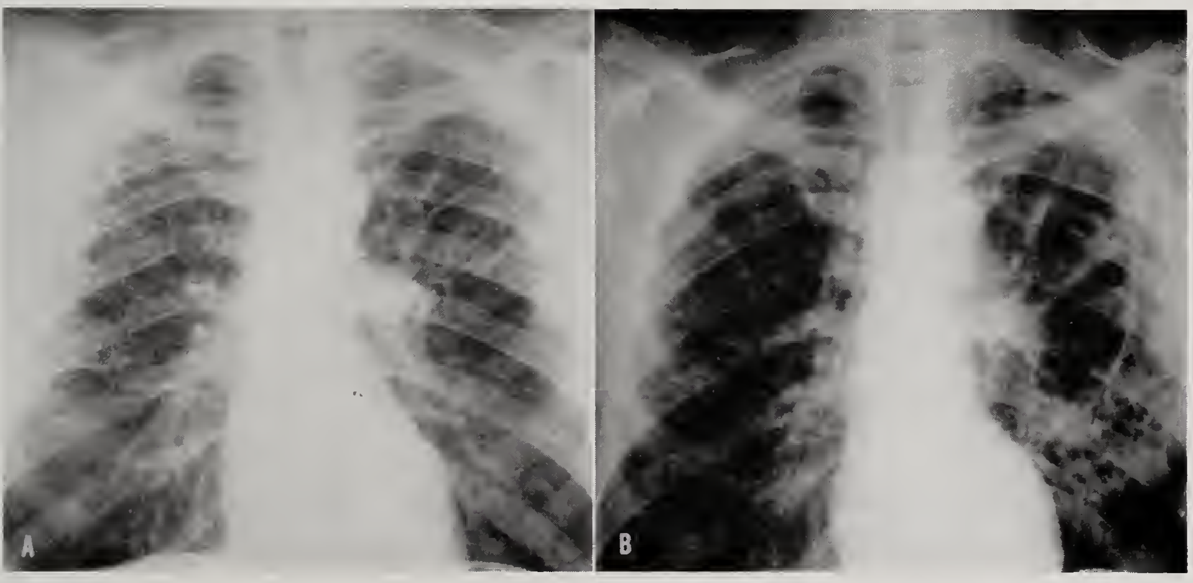

FIG. 1. (A) Honeycomb and cystic formation in both upper lung fields on December 10, 1956. (B) Marked extension in both lungs on August 4, 1959. The destruction of the right acromial process and fifth rib are also depicted.

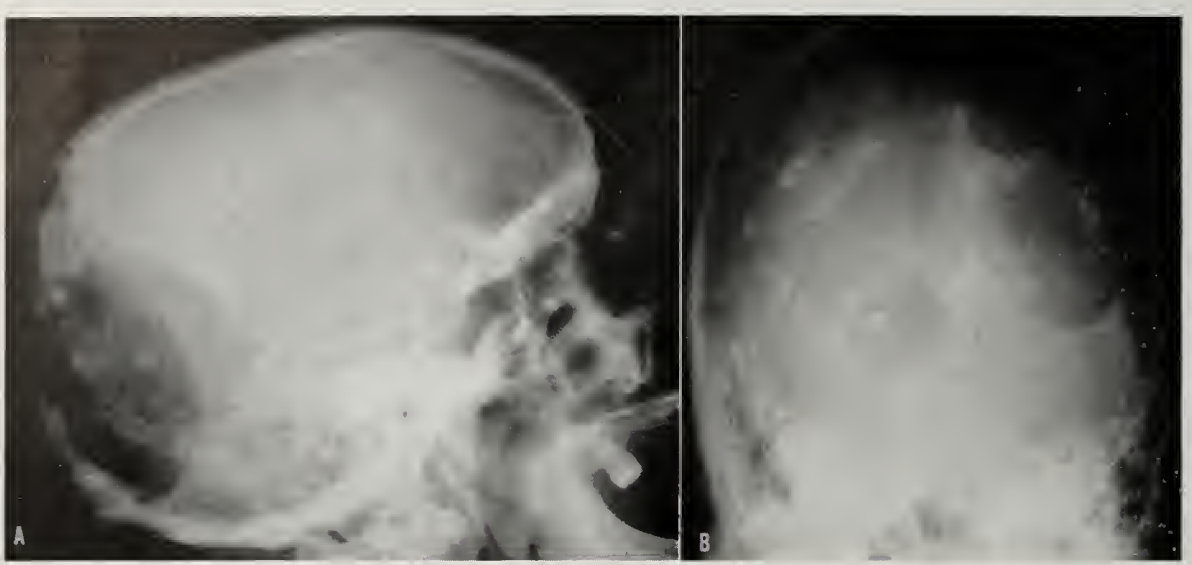

FIG. 2. (A and B) Extensive destruction of occipital and parietal bones with soft tissue masses on day of admission.

emphysema extending up the neck and down to the scrotum. Finally, he developed right-sided pneumothorax as well and expired on December 2, 1959.

At autopsy the left upper lobe was found completely replaced by a multiloculated cystic structure traversed by many thick fibrotic bands. The right middle and upper lobes were similarly involved, but the cysts were smaller. The liver had occasional small (0.5 cm.) whitish to yellow, well-circumscribed nodules on the surface as well as in the parenchyma. The pancreas was grossly normal. Microscopically these nodules presented the same picture as the biopsy specimens, with numerous foam cells. Such granulomatous lesions were also found in the bones, spleen, lymph nodes, and the mucosa of the right lower ureter. The pituitary gland and the brain were not involved.

DISCUSSION

In 1929 Rowland[3] correlated the group of cases previously described by Hand, Schüller, Christian and others. He drew the conclusion that his study, which showed that accumulations of lipoid cells occur both as a diffuse process in various organs and as localized nodular lesions, "clears up in a surprising way the mystery of the destruction of bone, exophthalmos, diabetes insipidus and dwarfism in the syndrome." He described the case of a 5-year-old boy with diffuse nodular lung involvement on X-ray examination, which looked like pneumoconiosis. At autopsy the whole lung was found to be a mass of communicating vesicular cavities varying in size from a pinhead to a large pea. The septums between the cavities were fibrous and inelastic. There were also pleural adhesions of the same peculiar yellowish, gummy nature.

The current term, histiocytosis X,[4] comprises Letterer-Siwe disease, eosinophilic granuloma, and Hand-Schüller-Christian disease. Previous terminology of this group of diseases included normocholesteremic xanthomatosis, reticuloendotheliosis, and lipoidosis. The etiology is unknown. The histologic picture of histiocytosis X varies with the phase of development of the disease. Engelbreth-Holm et al[5] described the following 4 phases: (1) reticulohistiocytic proliferation with accumulation of eosinophils, (2) granulomatous phase with increase of blood vessels and fibrils, reticular cells, histiocytes, eosinophils and giant cells with incipient lipid accumulation, (3) xanthomatous phase with nests of foam cells, and (4) fibrous stage, considered as a healing phase. There is, however, an overlap of these features at any one stage. Clinically the term eosinophilic granuloma is used for single-organ or even for multiple-organ involvement when the histologic examination shows the early active picture. The more generalized form with or without diabetes insipidus or exophthalmos, and presenting the later microscopic features inclusive of foam cells, is referred to as Hand-Schüller-Christian disease. The acute diffuse and rapidly lethal form of histiocytosis X (Letterer-Siwe disease) occurs mainly in infants and children. Eosinophilic granuloma of a single organ such as bone or lung is a relatively benign disease. Progression to the generalized form, however, does occur.[6]

Of the 24 children in Avery's study[7] of Schüller-Christian disease 3 died at the ages of 2, 3 and 4 years. The others were alive from 2 to 15 years. In adults the generalized form of histiocytosis is said to be the more malignant the earlier its onset. However, there are not enough cases on record to establish the age of onset as a criterion for prognosis in adults. Our patient had a consistently high (25 to 35 mm. per hour) sedimentation rate, which may serve as an indication of activity of the disease. The extent of involvement and the rapidity of the appearance of new lesions are much more reliable criteria. The course which our patient exhibited is in accord with the conclusion of Thannhauser that "the generalization of the disease with involvement of the lungs, liver and spleen immediately changes the prognosis for the worse in infancy as well as in later life."

The roentgenographic lung findings correlate well with the gross lesions.[8] The diffuse nodular picture may resemble the nonconglomerate stage of pneumoconiosis. The honeycomb configuration and the larger air-cavity formations are the result of 2 factors, namely, the granulomatous process involving the pulmonary interstitial tissues and the partial obstruction of the bronchioles with consequent ball-valve mechanism of inflation. Some of the cavities may have started as central necrosis of nodular granulomatous lesions. This roentgenographic picture, however, is not specific. It is also found on the basis of the same 2 factors in Boeck's sarcoid, diffuse scleroderma, tuberous sclerosis, and even in nonspecific interstitial lung fibrosis. Spontaneous pneumothorax is a not uncommon complication in histiocytosis X with lung involvement.

Lymph node and osseous lesions respond readily to small doses of roentgen irradiation. The pain and the soft tissue tumors in and protruding from the bones rapidly disappear. Reossification in the adult, however, may take many months or even years. Skin and visceral lesions are said to be less responsive to irradiation. Several cases of lung involvement were reported which showed a good response to irradiation, ACTH and corticosteroids, but there were notable exceptions. Spontaneous regression has been encountered. The sensitive lung lesions were of the early granulomatous phase. One cannot expect any significant change in the older fibrotic lung infiltrations and in the cystic formations.

Roentgen therapy to the lungs was twice considered for our patient. It was not used because of the already present diffuse cystic changes (figure 1-B), the large volume of lung that would have had to be irradiated, and the fact that the patient did not exhibit any significant respiratory difficulty. Only maximum breathing capacity was found to be diminished. Respiratory functional studies as late in the course as September, 1959 disclosed a compensated chronic alveolar hypoventilation, accentuated during exercise, and moderately decreased oxygen saturation (88.8 per cent—normal 95 to 98) and oxygen capacity (14.93 vol. per cent—normal 19.5–20.5). The coëxistence of diabetes mellitus presented a dilemma as to the use of ACTH or corticosteroids. Though newer corticosteroids with purported lesser diabetogenic activity were available, it was considered prudent not to employ them in this patient. The occurrence of diabetes mellitus has been reported in several patients with histiocytosis X, but its pathogenetic relationship, if any, has not been clarified.

In 1955 Dauksys[9] found only 2 Negroes among the 123 cases of Schüller-Christian dis-

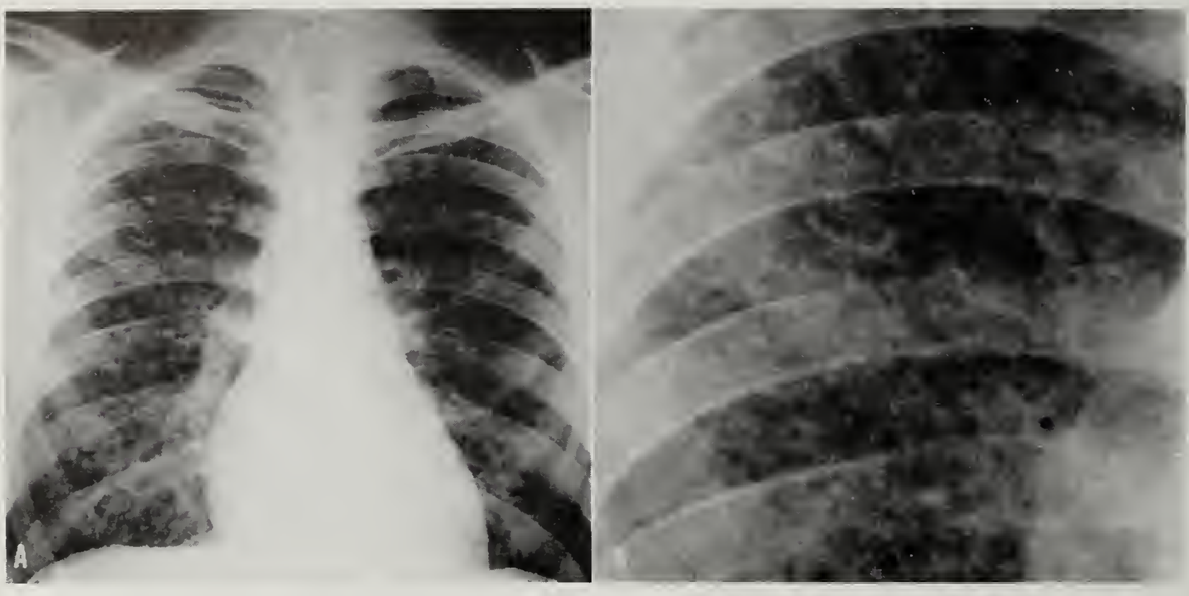

Fig. 3. (A) Diffuse bilateral lung infiltrations of a reticulated pattern (second patient). (B) Detail of right upper lobe exhibiting the honeycomb configuration.

ease reported up to that time. Despite the large Negro population in Baltimore, Avery found only 3 Negroes among 40 patients with histiocytosis X. We now have under observation another Negro patient (I. G.) but of lighter color than average, with eosinophilic granuloma, type of histiocytosis X, involving the lungs (figure 3) and skin, proven by biopsies, in addition to the one whose course is described above in detail. It is interesting to note that without biopsy this second patient would have masqueraded under the diagnosis of Boeck's sarcoidosis.

SUMMARY

A fairly typical course of the generalized form of histiocytosis X in an adult is described with the particular feature that the patient was a Negro. A second Negro patient with this disease is under observation. The conclusion as to any difference in incidence of histiocytosis X in the white and Negro races will have to await the accumulation of more cases.

The problem of roentgen therapy to involved lung is discussed in view of the known occasional spontaneous regressions of the early granulomatous lesions. It remains problematic whether irradiation should be used in the late cystic and fibrotic stage. The progressive extension and the possible presence of some still susceptible foci, coupled with the frequent complication of pneumothorax, seem to us to indicate irradiation in this phase of lung involvement. Respiratory functional values are not reliable criteria for indication for irradiation, since these are significantly impaired only in the very latest stages.

The occurrence of diabetes mellitus in this patient presented the dilemma as to the use of corticosteroids.

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Increased Intracranial Pressure in Children Not Due to an Expanding Lesion

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INCREASED INTRACRANIAL PRESSURE in children which does not result from an expanding intracranial lesion presents not only a difficult diagnostic problem but an even more perplexing one of therapy. Treatment is ill-defined when compared with that effective in cases of expanding lesions, in which definitive therapy consists of removal of the mass and provides relief from increased pressure.

Cerebral edema in children may vary from mild forms requiring only supportive therapy, e.g., cerebral contusion, to those of such severity that there is danger of blindness and a threat to life itself. Thus one may be faced with a most difficult diagnostic problem complicated by the pressure of time to achieve a decompression in order to save vision or life. Since there is no expanding lesion to be removed in the cases under discussion the methods of treatment for these patients are indeed limited.

Cerebral edema is commonly manifested by headache, vomiting, lethargy and papilledema. Because the etiology as well as the severity of edema is so varied in the pediatric age group, 4 cases referred to the neurosurgeon will be presented in illustration. In 2 of these it was thought that intracranial pressure was not severe enough to warrant surgical intervention. In a third, surgery was prophylactic. In the fourth patient vision was temporarily lost and the child became so stuporous that a decompression was obligatory.

REPORT OF CASES

Case 1. A 2-year-old colored boy was admitted with a 3-month history of weight loss and occasional episodes of vomiting. Three days prior to admission the child began to vomit frequently and became somnolent. The child's development had been normal and he had begun to eat a regular diet at the age of 1 without difficulty. Physical examination revealed a lethargic boy with papilledema, nuchal rigidity and mild dehydration who appeared malnourished. During the examination he developed right-sided convulsions.

The hematocrit was 35 per cent; the white blood cells numbered 13,500; serum calcium was 9.7 mg.; phosphorus, 3 mg.; alkaline phosphatase, 9.8 units, and blood urea nitrogen, 15 mg. A urinalysis was negative for albumin and sugar.

Upon questioning it became apparent that the patient had an appetite for plaster. The urine was examined for coproporphyrins, which were found to be present. Lead concentration in serum was 0.24 mg. per 100 ml. A lumbar puncture produced an opening pressure of over 500 mm., although the child was quiet and postictal. The fluid contained 188 mg. per cent protein, 116 mg. per cent sugar, and 6 lymphocytes. X-ray examination of the long bones revealed the characteristic lead line and films of the abdomen showed metallic densities throughout the abdomen. Skull and chest X-ray films were within normal limits.

The patient's state of consciousness varied between listlessness and a semicomatose condition. On the third hospital day intramuscular Calcium Versenate therapy was instituted (650 mg. per day for 5 days based on 75 mg. per Kg. of body weight per day). Upon completion of this therapy the child was more alert but irritable. The cerebrospinal fluid pressure was 420 mm., and coproporphyrins were present in the urine. Eighteen days after admission the child was alert and walking but remained irritable; urine was still positive for coproporphyrins. Calcium Versenate therapy was reinstituted for 5 days. On the thirtieth hospital day the lead concentration in blood had decreased to 0.08 mg. and urinary coproporphyrins were absent from urine. The patient was ready for discharge 38 days after admission and was gaining weight at that time.

Case 2. An 11-year-old Negro boy was in good health until 3 days prior to admission when he complained of frontal headaches and vomited. The following morning he was found limp and unresponsive. When he was examined the right side of his face began to twitch and he voided. Physical examination revealed an unresponsive boy with papilledema, blood pressure of 103/100, pulse rate of 120, and temperature of 100°F. His neck was not stiff. The remainder of the examination was unremarkable except for a grade III systolic murmur in the absence of cardiomegaly. The hematocrit was 30, the white cells numbered 18,800 with a normal differential; the blood urea nitrogen was 24 mg.; the fasting blood sugar was 128 mg.; the antistreptolysin titer was 166 Todd units, and the sedimentation rate was 54. His urine had a specific gravity of 1.022, was free of sugar, and contained 4+ albumin. An opening pressure of 570 mm. was obtained on lumbar puncture; chemical examination revealed a normal fluid.

The child was treated for glomerulonephritis and was given phenobarbital to control convulsive episodes. His early hospital course was marked by irritability and irrationality varying with drowsiness. Gradual improvement occurred, and the patient was discharged with a diagnosis of acute encephalopathy with increased intracranial pressure caused by acute glomerulonephritis.

Case 3. A 6-month-old Negro girl was referred because of premature closing of the coronal and sagittal sutures. The baby was a second twin, weighing 4 pounds and 11 ounces at birth, whose development had been normal except for frequent colds and an episode of diarrhea. She did not eat well but rarely vomited. The girl was able to follow objects with her eyes and to reach for them.

On physical examination the head and chest were found to be 36.5 cm. and 40 cm. in circumference, respectively. The fontanels were closed, but, aside from the peculiarly shaped head, the remainder of the findings were normal; there was no evidence of papilledema or optic atrophy. Skull roentgenograms demonstrated closure of the coronal and sagittal sutures.

In order to prevent the inevitable course of craniosynostosis 2 craniectomies were performed with an interval of 2 weeks between operations. In the first of these a ribbon of bone was removed parallel to the right coronal and sagittal sutures, respectively, followed by the insertion of a strip of polyethylene film to line the craniectomy site and prevent bone fusion. A similar procedure was performed on the left side at the second operation. During the next few months the infant developed normally.

Case 4. An 11-year-old Negro girl was admitted because of headache and vomiting of 1 week's duration. Except for obesity she had previously been in good health but had developed bifrontal headaches, early morning vomiting, diplopia, and increased lethargy. There was no evidence of head trauma or recent infection. Examination revealed a lethargic and obese (180 pounds) girl whose gait was steady except when walking heel-to-toe. Romberg's sign was negative, but bilateral papilledema with hemorrhages in both fundi was evident. Examination of the cranial nerves demonstrated bilateral sixth nerve paresis. Visual field examination revealed enlarged blind spots.

Laboratory findings disclosed a normal blood picture and urine analysis; coproporphyrins were not found, and the blood urea nitrogen was normal. After ventriculography and arteriography had resulted in normal findings a lumbar puncture was performed; the fluid had a normal protein concentration and was free of lymphocytes.

During the course of the next several days the patient became blind, progressively stuporous, and comatose. Her pupils reacted slowly and incompletely to light. At that point, the thirteenth hospital day, the patient was taken to surgery, and a bilateral subtemporal decompression was performed.

Subsequent to surgery gradual improvement occurred. On the third postoperative day she became more alert and oriented. On the eleventh day she could see large objects. Improvement of the fundus was noted on the thirteenth postoperative day. She was discharged on the forty-first day after admission in an asymptomatic condition except for slight weakness of the right lateral rectus muscle.

DISCUSSION

It is axiomatic that the initial problem in these cases was one of determining the primary etiology of the increased pressure as rapidly and as simply as possible. It has been previously noted[1] that the presentation of cerebral edema concurrent with a normal ventricular system includes consideration of the following diagnoses: degenerative diseases, e.g., Schilder's disease; trauma, e.g., concussion or contusion; toxic entities, e.g., lead encephalopathy; metabolic diseases, e.g., hypocalcemia[2]; meningoencephalitis from infection; interference with venous return, e.g., right heart failure, sinus thrombosis, or mediastinal tumors; blood dyscrasia, e.g., leukemia[3]; infectious mononucleosis; craniosynostosis, and pseudotumor cerebri. In general, the history, physical examination and easily available laboratory tests serve to eliminate and identify most of the possibilities.

With particular attention to the pediatric age group, it is important to elaborate on only a few of the more common causes. The first case was that of a patient with lead encephalopathy causing cerebral edema which was readily diagnosed by a positive reaction for urinary coproporphyrin and confirmed by X-ray findings. Although the child was followed closely during Versene therapy, a stage where decompression would be indicated was never reached.

In the second case a simple urinalysis established the etiology. Again, surgical intervention was unnecessary and the toxic symptoms gradually subsided. As is illustrated by this patient, severe hypertension need not be present in acute glomerulonephritis in order to produce increased intracranial pressure. It should also be noted that increased intracranial pressure in children is often not accompanied by changes in the vital signs, i.e., hypertension and bradycardia.

The third patient is presented as an example of prophylactic surgery which was necessary to circumvent increased intracranial pressure. Although the appearance of the baby's head, together with a fairly normal neuromuscular development and classical X-ray findings, is usually sufficient to establish the diagnosis of craniosynostosis, it occasionally becomes necessary to perform an air contrast study in order to differentiate this entity from microcephaly.[4] In the latter, surgery does not appear to be beneficial. For the correction of craniosynostosis Ingraham et al[4] have successfully introduced the use of a film of polyethylene implanted along a craniectomy line in order to maintain a physiologic suture and to allow the normal growth of the brain.

The last patient represents a diagnostic enigma which has been honored by the designation, pseudotumor cerebri. In the presence of greatly increased intracranial pressure as judged from funduscopic examination, neither the physical nor the laboratory examination offered a clue to the lesion. An expanding lesion appeared to be ruled out by the entirely normal ventricular and arterial systems outlined by contrast studies. Analysis of ventricular fluid and later of spinal fluid obtained by lumbar puncture yielded no evidence of infection. There were no findings to suggest a diagnosis of sinus thrombosis. The tenuousness of the diagnosis, based as it is on negative findings, may well be considered. That a disease entity does exist with the symptoms outlined has been documented by Dandy,[5] who was able to follow 22 cases of pseudotumor over a period of from a few months to 7 years without overt signs of tumor emergence. Regardless of etiology, which remains unknown, one is faced with a patient in immediate need of decompression. A decompressive procedure was performed in the case under discussion with subsequent full recovery of the patient.

The most common of the causes of increased intracranial pressure in children, head trauma and meningitis, should be noted. Papilledema under such circumstances is infrequent and symptoms of increased pressure are generally limited to elevated manometric readings and mild manifestations of drowsiness and vomiting. Complications such as intracranial collections of fluid, e.g., subdural hematoma or hygroma, are handled surgically in the usual manner for expanding lesions.

Treatment of increased intracranial pressure varies greatly with the severity of symptoms. The use of concentrated serum albumin,[4] hypertonic glucose,[4] and carbonic anhydrase inhibitors, e.g., Diamox,[6] have been advocated for reduction of cerebral edema. In cases of tuberculous meningitis with increased pressure cortisone has been used successfully.[7] The recent reintroduction of concentrated solutions of urea for relief of cerebral edema prior to and at surgery appears to offer a mode of treatment in acute cases.[8] Although not employed in this series, treatment with urea produces dramatic evidence of efficacy when the cerebral cortex is viewed at surgery. When liver disease or renal involvement exist, urea would be contraindicated. Hypothermia is also being explored in the treatment of this condition.[9]

Long-term reliance on any of these measures has not been found satisfactory, and their use is recommended for periods of less than 18 hours. Rebound phenomena have occurred whereby cessation of therapy has led to an even greater degree of edema. In our hands, urea has been assessed as the best of these agents, although prolonged use has given rise to electrolyte disturbances.

When increased intracranial pressure reaches the stage in which vision or life is threatened, surgery in the form of decompression offers the only successful form of therapy. Surgical interference in cases of craniosynostosis is only a prophylactic variation of such a decompressive procedure.

Summary

The cases of 4 children with increased intracranial pressure not due to an expanding intracranial lesion have been presented. One patient with lead toxicity and another with acute glomerulonephritis were managed without surgery. In a third patient surgery was performed prophylactically for craniosynostosis. A fourth child, with pseudotumor cerebri, required emergency decompression.

The etiology, diagnosis, and the role of the neurosurgeon in cases presenting with increased intracranial pressure in childhood have been discussed.

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Clinical Appraisal of Methiomeprazine, a New Antiemetic

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Until the introduction of chlorpromazine there were few drugs that would effectively control nausea and vomiting of diverse etiologies. Since then, however, a number of structurally related compounds that offered greater potency per mg. and in some instances fewer side-effects have become available. One of these which appears particularly promising is methiomeprazine. Studies in animals show that it blocks apomorphine-induced emesis as effectively as chlorpromazine, can be given in lower doses, and has a lower order of toxicity.[1] It also possesses significant antihistaminic activity and moderate adrenolytic and barbiturate potentiating effects. In a report on the tranquilizing activity of methiomeprazine, Levy et al,[2] using daily doses up to 60 mg., found that side-effects were minor and usually consisted of drowsiness. Its relative safety and implied efficacy led me during the past year to evaluate the clinical usefulness of methiomeprazine, and this report summarizes my findings in 185 nonhospitalized patients.

Method

The 99 women and 86 men in the evaluation ranged in age from 16 to 83 years. Most patients, particularly those with acute infectious diseases, had experienced at least 3 episodes of severe vomiting during the 2 hours preceding treatment. Patients with nausea and vomiting of pregnancy (morning sickness) and those whose vomiting was due to alcoholic gastritis or other gastrointestinal disorders had been vomiting intermittently for periods up to 1 week. After conditions such as intestinal obstruction, brain tumor, or other conditions that might require surgery had been ruled out, an initial dose of methiomeprazine was administered intramuscularly. Most patients were given 5 mg., later 4 mg., then 2 mg. Of the 16 pregnant patients, 5 who had not vomited for several hours received oral doses of either 4 mg. or 5 mg. initially. All patients were subsequently maintained on oral doses of 4, 5, or 8 mg. every 3 or 4 hours until nausea and vomiting were completely controlled or were relieved for 4 to 6 hours until the patient could retain food or liquids. The average duration of therapy varied from 2 to 3 days in those with vomiting associated with viral infections to several weeks in those whose vomiting recurred intermittently. Patients were asked to note the effect of therapy, that is, whether they obtained relief, and if so, how soon after they took the first dose of medication. The patient's response to treatment was evaluated 2 or 3 days later. Results were judged as "complete" when both nausea and vomiting were relieved, "partial" when vomiting was controlled but nausea persisted, and "minimal or none" when slight or no relief of nausea and or vomiting occurred.

Results

Overall results of treatment are shown in table 1. As noted, both nausea and vomiting were completely controlled in 113 (61 per cent) patients, vomiting was controlled but some nausea persisted in 63 (34 per cent) patients, and no control of either nausea or vomiting was achieved in 9 (5 per cent).

Following intramuscular administration of the drug the onset of antiemetic effect averaged approximately 45 minutes and lasted from 3 to 4 hours. During the evaluation it was found that the 5 mg. intramuscular dose which had been used initially could be reduced to 4 mg. and then to 2 mg. without any apparent decrease in efficacy. It was also possible to reduce the maintenance dose; for instance, at 4 mg. every 3 hours complete relief of both nausea and vomiting was maintained in 67 per cent of the patients treated for gastroenteritis compared with 69 per cent of those who received 8 mg.

TABLE 1

Effects of Methiomeprazine on Nausea and Vomiting of Various Etiologies

Diagnosis	Results			
	Complete	Partial	Minimal or None	Total
Gastroenteritis	79 (61%)	43 (33%)	8 (6%)	130
Alcoholic gastritis	9 (41%)	12 (52%)	1 (7%)	22
Meniere's syndrome and labyrinthitis	6 (85%)	1 (15%)	0	7
Pregnancy	13 (82%)	3 (18%)	0	16
Other*	6	4	0	10
Total	113 (61%)	63 (34%)	9 (5%)	185

* Nausea and vomiting associated with migraine headache (3), peptic ulcer (4), and minor surgery (3).

Many of the patients were treated for nausea and vomiting associated with acute gastroenteritis, a condition in which symptoms, although severe, are usually of short duration and in which rapid spontaneous remission sometimes occurs. In order to determine whether spontaneous remission had any effect on the outcome of treatment, results in patients whose symptoms were caused by gastroenteritis were compared to results obtained in patients whose symptoms were more "chronic," i.e., had been more prolonged and less likely to stop suddenly, as in peptic ulcers, labyrinthitis and alcoholic gastritis. The comparison, shown in table 2, indicates that methiomeprazine seems to have the same high degree of antiemetic effectiveness in chronic conditions as it does in those that are acute. However, in the acute conditions it controlled accompanying nausea somewhat more frequently.

TABLE 2

Comparison of Results in Persistent and Short-term Nausea and Vomiting Fellowing Administration of Methiomeprazine

Nature of Etiology of Vomiting	Number of Patients	Results (Per cent)		
		Complete	Partial	None
Short-term (acute gastroenteritis, minor surgery, etc.)	128	57	37	6
Persistent (alcoholic gastritis, morning sickness, etc.)	57	56	42	2

Results in patients who received only methiomeprazine were compared with results in those who received concomitant medication (antidiarrheals, antipyretics, and antispasmodics) in order to determine whether the latter had an effect either positive or negative on the outcome of treatment. As can be seen from table 3, the results in both groups are similar and indicate that the relief of symptoms was due, chiefly, to the administration of methiomeprazine.

TABLE 3

Comparison of Results in Patients Receiving Methiomeprazine Alone and Methiomeprazine with Concomitant Medication

Medication	Number of Patients	Results (Per cent)		
		Complete	Partial	None
Methiomeprazine alone	95	64	31	5
Methiomeprazine with concomitant medication	90	57	38	5

In a similar manner, an estimate of the nature and frequency of side-effects was made. Mild drowsiness, which occurred in 15 (8 per cent), was the only side-effect observed. Since one would expect that a greater percentage of patients would experience this effect when they were receiving central nervous system depressants in addition to methiomeprazine, this factor was considered in analyzing the data. Of the 12 patients who received such depressants and methiomeprazine, 17 per cent experienced drowsiness, while 7 per cent of those who received only methiomeprazine reported this effect. Because of the small number of patients involved, however, the difference does not appear significant but could indicate that methiomeprazine may add to the depressing effect of barbiturates and narcotics. Clinically, it appeared that drowsiness, in some patients at least, was a natural response to the relief of symptoms.

In the recent past, 83 patients in this series had been treated with other agents to control nausea and vomiting of the sort treated with methiomeprazine. Table 4 compares the outcome of treatment with that obtained with methiomeprazine. Aside from antiemetic effects, methiomeprazine caused few other drug effects in the doses used. One patient with delirium tremens became noticeably less restless and less agitated after receiving a 5 mg. intramuscular dose of methiomeprazine. The drug controlled both nausea and vomiting that occurred in 7 patients with labyrinthitis and Meniere's syndrome, but it did not seem to affect the dizziness. Even though 16 patients were pregnant and thus physiologically disposed to hypotensive episodes, no significant changes in blood pressure were observed.

TABLE 4

Comparative Efficacy of Methiomeprazine in Patients Previously Receiving Other Antiemetics

Type of Previous Antiemetic	Number of Patients	Results Afforded by Methiomeprazine		
		Superior	Same	Inferior
Non-phenothiazines	32	30	2	0
Phenothiazines	51	42	2	7
Total	83	72	4	7

Summary

Methiomeprazine was used in the treatment of 185 patients with nausea and vomiting due to gastroenteritis, alcoholic gastritis, pregnancy, and other conditions. The first dose was administered intramuscularly; subsequent doses were given orally. Complete relief of both nausea and vomiting was achieved in 113 patients, vomiting was relieved but some nausea persisted in 63, and little or no relief was obtained in 9. The proportion of patients in whom control of vomiting was achieved did not differ significantly with the cause of the vomiting; however, complete relief of accompanying nausea was obtained less frequently when vomiting had been severe and prolonged. The only side-effect observed was a mild transient drowsiness which occurred in 8 per cent of the patients. Methiomeprazine appears to be a highly effective antiemetic that seems to cause fewer side-effects than structurally related compounds.

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PRESIDENT'S PAGE

AN EVENTFUL YEAR

In terms of historical events this has been a tremendously important year. In contrast to the optimistic predictions heard in January, business has not boomed, and the Golden Sixties do not glitter as early as had been hoped. We have witnessed one of the most vigorously fought political campaigns in the history of the Republic. We have seen the Communists fail in their attempt to wreck the United Nations 6 months after they succeeded in destroying the Summit Meeting. We have seen the young African nations join the ranks of the free peoples. But revolution and dissension have disturbed the peace in many parts of the world.

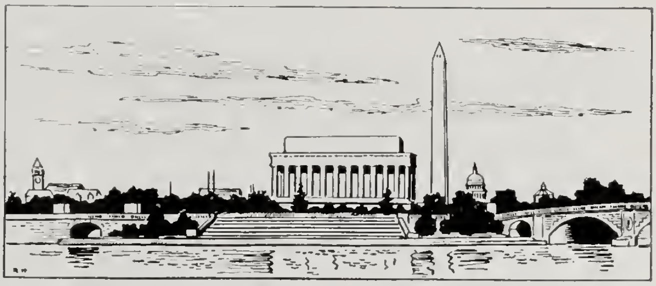
This has been a most eventful year for the medical profession. Progress in the science of medicine continues at a steady pace. Many of the problems which beset us have been brought into clearer focus for all to see, appraise and try to solve—problems like the increasing need for expansion of medical education. Problems related to the socioeconomic aspects of medical care will continue to demand from us foresighted leadership, based on a willingness to be both flexible and realistic. We must not be satisfied with rear-guard actions in opposition to legislation which appears inimical to the public interest.

Our own Society has had a busy and rewarding year. On the whole, we have had a most gratifying attendance at the scientific meetings, but there is still much room for improvement. In this connection, I wish to stress again the need for effective liaison between the Society and the Medical Schools and hospitals of the area. We must find ways to cut down the number of meetings, avoid duplication of programs, and stimulate better attendance.

We took a giant step forward in prepaid medical care on the basis of free choice when the Federal Employees' Health Benefits Act went into effect here and the rest of the Nation on July 1. The Relative Value Scale has been prepared to provide an important tool in the preparation of fee schedules for insurance purposes.

I reach the end of my term with mixed feelings. The small personal sacrifices which the President must make are very generously compensated by the honor of the office and the opportunity to serve. Our Medical Society is fortunate to have so many fine men who are willing to give their time generously to the work of the various committees. To all these men, and to our loyal and efficient staff may I express my sincere thanks for the wonderful job they have done.

Victor R. Alfaro.



EDITORIALS

FEDERAL REGULATIONS ON DRUG SALE OF POTASSIUM PERMANGANATE

Physicians everywhere, and particularly those associated with the large city hospital, are well aware of the problems presented by the young women admitted to the hospital as a result of attempts to interrupt an unwanted pregnancy. Driven by fear and desperation, these women will seek help from almost any source. They often resort to methods or agents suggested by "old wives' tales," neighborhood gossip, or the recommendation of some unscrupulous druggist to whom they have turned. Frequently they are left with permanent and serious damage despite the fact that such treatments usually fail to accomplish their intended purpose. The further tragedy is that too often these severe injuries occur in patients who are not actually pregnant, but only fear they are.

In 1941 there appeared the first report in American literature of injury due to the intravaginal use of potassium permanganate. This report described serious vaginal bleeding due to chemical burns in 17 patients admitted to the Boston City Hospital. The chemical potassium permanganate, in addition to its many industrial uses (e.g., in water purification and in the textile, leather, and photographic industries), has also been used as a drug for many years. It has been recommended chiefly in relatively dilute solutions for a variety of dermatologic problems, as a topical astringent and antiseptic. Since potassium permanganate is not stable in solution, it was usually available in the form of crystals or tablets. Furthermore, since directions could be easily devised for making a 1:1000 to 1:10,000 solution for use in treating such conditions as athlete's foot, the drug was available for general use by the laity, with no need for a prescription. Hence, the ready availability of potassium permanganate.

It is difficult to determine how use of potassium permanganate as an abortifacient began or what perpetuated its use for this presumed purpose. A review of our medical journals since the first reports of injury in 1941 through 1958 showed more than 20 articles involving over 1,000 injury cases serious enough to require hospitalization. There seemed to be little question both that the incidence of this type of injury was increasing and that the geographic distribution was spreading.

The caustic potential of potassium permanganate on tissue is well recognized and accounts for the problem encountered. The characteristic symptom in nearly all these cases has been profuse, painless, vaginal bleeding. Exsanguinating hemorrhage has resulted in at least 2 deaths and has not occurred more often only because prompt and adequate medical care has thwarted

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of the Medical Society of the District of Columbia

a fatal result in a number of instances. The size and depth of the vaginal and cervical ulcers produced by the permanganate have been extensive enough to require suturing or ligation of eroded vessels under anesthesia in about 50 per cent of all patients. Transfusions have been required in about 30 per cent of these patients.

Although potassium permanganate used intravaginally is not an abortifacient and does not interfere directly with the pregnancy, its use can cause serious obstetrical complications. There are many instances cited of severe scarring, necessitating delivery by cesarean section because of the previous vaginal and cervical damage. In addition, the eroding damage has been sufficiently severe to have caused penetration of the vaginal wall in an occasional patient with formation of a vesicovaginal fistula or complicating bowel obstruction.

Although the use of tablets or crystals of potassium permanganate is the most serious problem, the use of concentrated douche solutions has also accounted for a number of injuries. Again, some of this problem may be due to the undissolved fragments of the solid chemical, since it goes into solution only very slowly, but it does point further to the hazardous potential of this chemical.

Over the years that these injuries were accumulating the medical profession had expressed its serious concern about the problem, and a number were on record as recommending that the sale of potassium permanganate be restricted. However, to the Food and Drug Administration, whose task it is to apply the legal control of drugs under the Federal Food, Drug, and Cosmetic Act, it presented a serious legal problem. The philosophy of the law permits drugs to be available without prescription if offered for conditions amenable to self-diagnosis and treatment, and if the drug can be safely labeled for self-medication. If the directions were followed in making up the dilute solutions of potassium permanganate for use in minor skin conditions, there was no hazard. The difficulties arise only when the chemical is misused, and we are cognizant of the fact that the misuse of other relatively safe home remedies can cause harm. There was a question, then, whether the sale of this drug could be legally restricted. The continuing reports of increasing numbers of serious injury resulting from abuse of potassium permanganate demonstrated a serious public health menace requiring special attention. At last, the growing evidence convincingly showed the need for whatever control was possible. The Federal Register of August 23, 1960 carried a statement by the Food and Drug Administration to the effect that after October 23, 1960 tablets and crystals of potassium permanganate could be sold as drugs only on prescription An exception was granted for very dilute solutions containing no more than 0.04 per cent of the drug which must also be labeled: "Warning—for external use on the skin only. Severe injury may result from use internally or as a douche. Avoid contact with mucous membranes."

One must recognize that the Food and Drug Administration is obliged to function within the limits of the law in controlling the use of drugs. It must be recalled also that potassium permanganate has numerous other nondrug uses which cannot be controlled under the drug laws. Potassium permanganate will continue to be available for laboratory use and for the various previously cited commercial uses, including its employment in some home water-softening elements. An attempt has been made to deal with the drug distribution of this agent, which has evidently been the major source of supply of potassium permanganate to those who foolishly, and in this case, futilely, seek an abortifacient. The only way that health authorities can deal effectively with abuses resulting from these other sources is to learn of continued incidents of injury. Physicians are therefore encouraged to report these injuries and indeed all injuries attributed to drugs and chemical agents. These reports, in addition to being published in the scientific literature, may be sent directly to the Adverse Reaction Program, Food and Drug Administration, U. S. Department of Health, Education, and Welfare, Washington 25, D. C.

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VACCINATION AGAINST INFLUENZA

Based upon the information submitted by the Public Health Service's Advisory Committee on Influenza Research, the Medical Society of the District of Columbia and the D. C. Department of Public Health recommend the following policy:

Experience with Asian influenza between 1957–1960 has served to reëmphasize that patients in certain disease categories who acquire influenza are at much greater risk of death or severe morbidity than the normal population or patients with miscellaneous diseases. In order to reduce the hazard to patients at high risk, it is recommended, if not previously immunized with a polyvalent vaccine, that they be given two doses of polyvalent influenza vaccine at one month intervals.

If previously immunized with a polyvalent vaccine, it is recommended that a single dose of polyvalent vaccine be given to them.

Furthermore, because the occurrence and the severity of influenza cannot be predicted accurately from year to year, annual immunization of patients at high risk is recommended.

Patients in the following disease categories apparently have experienced the highest mortality rates and, therefore, specific protection is clearly indicated for them as a routine practice:

A. Persons at all ages who suffer from chronic debilitating disease, e.g., chronic cardiovascular, pulmonary, renal or metabolic disorders; in particular:

1. Patients with rheumatic heart disease, especially those with mitral stenosis
2. Patients with other cardiovascular disorders such as arteriosclerotic heart disease and hypertension, especially those with evidence of frank or incipient cardiac insufficiency
3. Patients with chronic bronchopulmonary disease, for example, chronic asthma, chronic bronchitis, bronchiectasis, pulmonary fibrosis, pulmonary emphysema, pulmonary tuberculosis
4. Patients with diabetes mellitus
5. Patients with Addison's disease
6. Patients, both children and adults, subject to recurrent respiratory infections.

B. Pregnant women should also be considered in these high-risk groups.

C. Patients over 65 years of age, especially those in institutions. The highest age specific death rates from influenza and pneumonia occur in these age groups.

D. Patients who desire advice concerning the medical indication and their particular need to have influenza vaccination should consult their physicians.

DOSE AND SCHEDULE OF VACCINATION BY AGE

1. *Children 3 months old to preschool age:* Initial doses of 0.1 to 0.2 ml. (50 to 100 CCA units) should be administered subcutaneously on 2 occasions, separated by 1- or 2-week intervals. A "booster" inoculation of the same strength should be given 2 to 3 months later. Preferably the schedule of vaccination should be completed by November 1. Since febrile reactions to vaccine in this age group may reach an incidence of 20 per cent, it is suggested, when not contraindicated, that acetylsalicylic acid (1 grain per year of age) be given every 6 hours for the first 24.

2. *Children aged 6 to 12 years of age:* 0.5 ml. (250 CCA units) should be administered subcutaneously on 2 occasions. Each dose should be separated by 2 or more months. Preferably the first dose should be given no later than August 1 and the second no later than November 1.

3. *Adults (i.e., individuals 13 years of age or older):* 1.0 ml. (500 CCA units) should be administered subcutaneously on 2 occasions, separated by 2 or more months. The schedule recommended for the 2-dose program in this age group is the same as in paragraph 2.

4. *Persons previously immunized with polyvalent vaccine:* Each fall, prior to November 1, persons previously immunized with polyvalent influenza virus vaccine should be reinoculated with a single dose according to the following schedule:

Children 3 months old to preschool age: 0.1 to 0.2 ml.
Children aged 6 to 12 years: 0.5 ml.
Adults: 1 ml.

If there should be any change in the influenza picture to indicate the probability of a widespread outbreak of a specific strain of influenza in the Washington area, the Medical Society and the Department of Public Health will promptly make appropriate additional recommendations for the District of Columbia.

CLIFTON R GRUVER, M.D.
Chairman, Committee on Public Health, The Medical Society of the District of Columbia
DANIEL LEO FINUCANE, M.D.
Director, Department of Public Health, District of Columbia

CHOICE OF PHYSICIAN UNDER THE COMPENSATION ACT

The Longshoremen's and Harbor Workers' Compensation Act, which governs the practice of industrial medicine in the District of Columbia, has heretofore provided that the choice of physician be determined by the employer. It has been customary for the insurance carrier or the employer to designate the treating physician. They were also empowered to direct a change in the attending physician when circumstances warranted a change.

A bill was enacted during the recent session of Congress to amend the Longshoremen's and Harbor Workers' Compensation Act to provide that the employee have the right to select his own physician. The Act directs that the employer will name a panel of physicians to be approved by the Deputy Commissioner, who will also determine the number of physicians to be named on each panel. From this panel the employee may choose his physician. When immediate treatment is required the employer may select a physician who is not on the approved panel. However, the employee may subsequently make his own selection from the panel. The Deputy Commissioner is granted the authority to determine the requirements and quality of the medical care and is further authorized to direct a change of physician or hospital when he considers it desirable.

The Act specifies that the attending physician must render the proper report within a period of 20 days of the first treatment in order that a claim for treatment may be valid. Failure of an employee to submit to reasonable treatment may justify the suspension of compensation payment until treatment is resumed.

The Deputy Commissioner is empowered to have an employee examined by a physician selected by the Commissioner if there is any doubt about the estimate of permanent or temporary disability suffered by the employee.

The full impact of this bill on the practice of industrial medicine in the District of Columbia cannot be foreseen. The selection of a panel of physicians is made by the employer, while the selection of the treating physician is made from this panel by the employee. The Deputy Commissioner is authorized to approve the panel of each employer under his jurisdiction. He is also empowered to determine the adequacy of medical care and to control the fair evaluation of disability in the interest of the injured employee and the employer. It is important in the administration of this Act that the employee have a free choice of physician and that there be no undue influence or coercion from higher authority in the selection of his doctor. If free choice of physician is maintained as this bill directs, it should promote good patient-physician relationship, which the medical profession has advocated. It is not likely that the practice of industrial medicine will be seriously affected by this amendment to the Longshoremen's and Harbor Workers' Compensation Act.

LEONARD T. PETERSON, M.D.
Chairman, Committee on Industrial Health

MEDICAL BUREAU'S TWENTIETH ANNIVERSARY

It is hard to believe that two decades have passed since the Medical Bureau was established. To those who were responsible for organizing this valuable agency of the Society, it seems only yesterday that it began operation. When Theodore Wiprud, Executive Director of the Society, arrived in 1938, it was known that he had had considerable experience with a telephone answering service. He pointed out that such a service would be a valuable asset to the Society. The Executive Board agreed, as did the Society. The first effort to get the service under way failed to materialize because of the short time in which to work out the many details necessary before beginning operation. The second was successful, and on December 2, 1940 the first call was taken by Bureau operators.

On the date the Bureau began operation, there were 115 subscribers, 15 to the Telephone Secretarial Service and 95 to Alternate Listing Service, with tie-lines from the switchboard to 5 local hospitals and the Health Security Administration. As of November 7, 1960, there were 783 subscribers to the Bureau, 290 to the Alternate Listing Service, and 455 to the Telephone Secretarial Service, 26 subscribers to the Secretarial Service having lines to both their offices and residences. There are now tie-lines with Children's, Columbia, Doctors, George Washington, Providence, and Sibley Hospitals, the Hospital Service Agency, Group Hospitalization, Inc., and the Emergency Ambulance Service.

The Bureau was first located on the first floor of 1718 M Street, N. W., in a space now occupied by the ladies' lounge. It has expanded from a single-position switchboard with a staff of 3 operators to an 8-position switchboard employing 20, full-time operators, 4 relief operators, an office supervisor, an information clerk, and a manager.

Records on file show that during its first month of operation in December 1940, a total of 1,321 recorded messages were handled by the Bureau, as compared with 55,439 recorded messages handled in December 1959. On Saturday, January 23, 1960, due to the prevalence of respiratory diseases, the Bureau received 1,103 calls for doctors—the greatest number in a single day in the history of the Bureau.

In addition to handling calls for physicians the Bureau has served as a reliable medical information center. Persons having no physician have been provided names of general practitioners and specialists from a classified list furnished the Bureau by the Society's Classification Committee. Also made available to the public is a list of physicians who will respond in emergencies. Many physicians were aided materially in establishing their practices through the Bureau's referral system and emergency call program.

In recounting his many experiences with the Bureau, Mr. Wiprud recollects especially the turbulent war years when operators were very difficult to secure. In fact, at one period during an endemic of respiratory illnesses, the Bureau was so shorthanded he had to seek assistance of the Public Health Service. The one operator provided by the Service was not sufficient so he enlisted the aid of members of the office staff, and, on some occasions, his wife.

The Bureau has been moved three times since World War II from its original place in the ladies' lounge. Its second location was in the front offices on the first floor of 1710 M Street. Subsequently, it was moved to a self-contained unit on the first-floor rear of the same building, where it now is.

In view of the large telephone installation required, every precaution is being taken against any catastrophe, such as fire, which might disrupt the Bureau's operation. If it were put out of commission completely, it would require at least a year before the telephone company could restore the connecting lines with doctors' offices and cables which are now necessary.

The success of the Bureau has been due to the guidance of the Medical Bureau Committee since its inception, its able present chairman, Dr. Charles P. Ryland, Mr. Wiprud and his assistants. Although the Bureau is under the direction of the Committee, consisting of Bureau subscribers, the Society's Executive Director is directly responsible for its operation.

The excellent and dedicated service of the operators of the Medical Bureau deserves much credit. Miss Mary M. McCambridge, Office Supervisor, has been associated with the Bureau since March 1947 and has given efficient and loyal service. Her duties include the management of the Bureau office and the supervision of the switchboard staff.

Those of us associated with the Bureau are proud of its record during the past two decades. We shall continue to make plans for its greater service to the public and the medical profession in the years ahead.

Lawrence A. Zupan
Manager, Medical Bureau

CLINICAL CENTER STUDY ON POLYCYTHEMIA IN ASSOCIATION WITH NEOPLASTIC DISEASE

The coöperation of physicians is requested in a study on the association of polycythemia with neoplastic disease being conducted by the metabolism service of the National Cancer Institute in the Clinical Center of the National Institutes of Health. An elevation of the circulating red cell volume in the absence of leukocytosis and thrombocytosis has been noted in a significant number of patients with renal tumors and cerebellar hemangioblastomas and rarely in patients with uterine fibroids, pheochromocytomas, and other neoplasms. The presence of an erythropoiesis-stimulating factor has been demonstrated in homogenates of the cerebellar, renal and pheochromocytoma tumor tissue. This study has as its purpose the determination of the chemical nature and mode of action of the erythropoiesis-stimulating factor produced by these tumors.

Patients admitted to the study undergo a period of clinical evaluation including the determination of the circulating red cell volume, red cell life span and the rate of red cell synthesis. Plasma and tumor tissue, if available, will be assayed for erythropoiesis-stimulating activity.

Physicians who wish to have their patients considered for this study at the National Cancer Institute may write or call Dr. Thomas A. Waldmann, National Cancer Institute, Bethesda 14, Maryland, telephone Oliver 6-4000, extension 3667.

THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

IN & OUT OF FOCUS

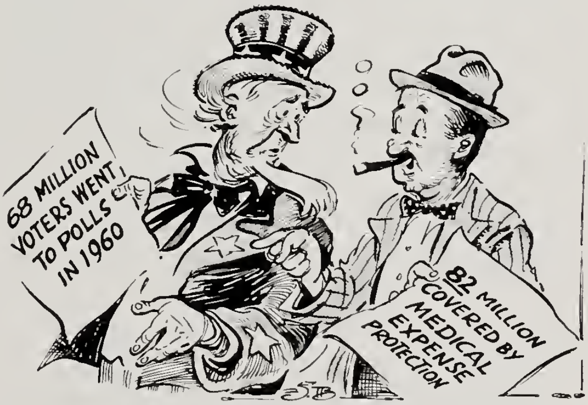
By the Observer

Too Little, Too Late?

None but the prejudiced would deny that the growth of voluntary health insurance in this country in the past 10 years has been one of the phenomena of our times. In 1950 there were 77 million persons having some protection against hospital expense. This figure had increased by the end of 1959 to 128 million. Limited surgical expense protection, mostly in the hospital, had an even more astonishing growth. Fifty-four million persons were protected in 1950. Ten years later this number had increased to 117 million. Medical expense protection is of more recent origin. Nevertheless, the number of persons having some protection had increased from 20 million in 1950 to 82 million in 1959.*

Despite this spectacular showing and ample evidence that energetic efforts are being made by Blue Shield, commercial insurance companies, and independent prepayment plans to meet the demands of the public for broader protection, the question which plagues every responsible official in this field is, is it too little and too late?

Voluntary health insurance in the United States was unfortunately delayed not only because of the opposition of organized medicine but due to the skepticism of commercial insurance companies. To the credit of medical societies in various parts of the country it was they who pioneered in the medical prepayment field when commercial insurance companies refused to participate, taking the position that voluntary health insurance involved too great a financial risk. However, for some years now, both have vigorously pushed their prepayment programs. Thousands of physicians are actively behind Blue Shield Plans, fully appreciating the importance of their success. Worried insurance companies are relentlessly pursuing prospective policyholders, both individuals and groups. The reason for this vigorous activity is obvious. Enactment of national legislation which would


68 MILLION VOTERS WENT TO POLLS IN 1960
82 MILLION COVERED BY MEDICAL EXPENSE PROTECTION
SB

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* Statistics supplied by the Health Insurance Council, 488 Madison Avenue, New York 22, N. Y.

eliminate the necessity for voluntary health insurance is not a remote possibility.

These lines were written in the last days of the Presidential campaign. Both candidates are committed to far-reaching health programs, especially for the aged. These programs involving new legislation may become a reality regardless of the progress made by voluntary health insurance. However, this should not be accepted as an accomplished fact. In the opinion of the leaders in the medical prepayment field, there is still time, but it is rapidly running out.

In view of the urgency of the situation and the vital role doctors will play in the future of voluntary health insurance, these comments are directed specifically to the medical profession. The apparent apathy of the majority of physicians throughout the country where the effectiveness of its own prepayment program, Blue Shield, is concerned has been of deep concern to many of its officials.

Efforts to make physicians generally aware of the crucial nature of Blue Shield's situation have met with only moderate success. Meetings devoted to the consideration of the problems of individual Blue Shield Plans have held little interest for the average physician. Witness the pathetically small attendance at their annual business meetings where policies important to every physician are determined. There is even less concern shown for the national Blue Shield program. This situation, too, is taking on serious proportions because if participating plans are not standardized failure would seem inevitable.

It is doubtful if many articles appearing in medical journals about voluntary health insurance are widely read by doctors. At least this is the impression one gains in listening to small groups of physicians when they discuss the subject.

Again, time is of the essence where voluntary health insurance is concerned. Medical leaders know it. They are trying desperately with more or less effectiveness to meet the demands of the people through voluntary methods but they need the support of greater numbers of the profession.

What are the objectives of forward-looking Blue Shield leaders and their supporters? Briefly, they are the establishment of standards to which all of the plans will adhere, general adherence to the service principle; broadening of benefits to meet the demands of the people; a much closer liaison between National Association of Blue Shield Plans and the American Medical Association; and, finally, a cohesive national organization having a far more significant influence in dealing with this country's prepaid medical care problems than in the past.

★

An Internist Speaks His Mind

As nearly all our readers know, Dr. Wallace M. Yater is the long-time Editor of the MEDICAL ANNALS. One of the country's best known internists, he has not only distinguished himself as a medical journalist, but as an author, medical educator, and a widely sought after speaker by medical societies.

At one time Professor and Chairman of the Department of Medicine, Georgetown University School of Medicine, he now heads the Yater Clinic in Washington. Among other important posts which he holds is that of Secretary-General of the American College of Physicians.

Dr. Yater is deeply concerned about the future of his specialty and has strong views about the effect the socioeconomic trend is having on those who enter it. Having heard him express opinions on various occasions, your Observer sought an interview, which follows.

Q. *How well are doctors doing financially these days?*

A. "Unfortunately, doctors must make a living. They do not expect to become millionaires, but they would like to make an income commensurate with their position in life and their background in education. Most men select a medical career because they know it is a noble calling, but they have a right to expect to make a good living, too, because of the lengthy and expensive period of preparation for practice, the long hours of service required, and the heavy responsibility involved.

"In order to have a net income before taxes of $15,000 per annum, which is probably the average income for physicians, the doctor must work 60 hours a week and gross at least $25,000. Reliable polls show that the average overhead per physican is 40 per cent of his gross income. In our Clinic our overhead runs nearly 50 per cent, but our Clinic includes an X-ray department, which, of course, is notoriously expensive to maintain. Overhead is gradually going up while fees are remaining practically stationary.

Q. *Is the situation you describe discouraging qualified young people from entering upon a medical career?*

A. "A few years ago there were somewhat less than 25,000 young men and women applying for entrance to medical schools in this country, whereas today there are somewhat less than 15,000 applying. Why is this? There are probably several factors responsible. It may be that the image of the physician to the public has deteriorated in the last few years; it may be that the lengthy and expensive period of educational training to enter practice and the years involved to become established and make a decent living are scaring away a great many of our young people. It may also be that other fields of endeavor are being made more attractive to them in the national effort. Whatever it is, it is a sad thing, since we need more and more well qualified, intelligent young people entering medicine.

Q. *You have voiced your views of fee schedules on several occasions. Will you state what they are?*

A. "This is a day of fee schedules. A fee schedule system means that all doctors are considered of equal ability. No matter what a man's reputation may be, no matter how preeminent he may become, he can command no greater fee than the young man just out of training who has not yet learned actually how to practice medicine.

Q. *What is your opinion of voluntary health insurance plans where fees are concerned?*

A. "The free enterprise system actually is the indemnity system which some commercial companies are fostering. Under this system the doctor renders a bill for his regular fee, the insurance company pays the patient, and the patient pays the physician. This has always seemed to me to be the more sensible approach to the question of ability to pay doctors.

Q. *Do you want to elaborate further on fees?*

A. "Experience has shown that it takes a long time for fees on a fee-schedule system to be raised commensurate with the increase of the cost of living and the increase in the overhead of physicians' offices. It has been stated that perhaps such plans as the Blue Shield, which pays fees to physicians, may abandon income-level requirements. If the income limitations of the Blue Shield Plans should be eliminated, the $25,000 gross income and $15,000 net figure, which I previously mentioned, would be considerably lower. It would then be still more difficult than now to attract high quality young men and women to the medical field.

Q. *How do you feel about the present socioeconomic trend in medicine as it affects the internist?*

A. "The plight of the internist under the fee-schedule system is serious. The fact is that the internist is not recognized as a specialist in few, if any, fee schedules. Certain fees have been proposed for office visits and hospital visits which are far too small for the specialist in internal medicine. The well qualified internist has spent several years' additional in training and he spends a great deal more time with each patient than physicians not so trained. For example, an internist spends at least an hour, and often an hour and a half, and sometimes 2 hours with a new patient, getting a complete history and doing a complete physical examination. He rarely sees an office call patient in less than 20 minutes and usually half an hour.

"Now if he were to get 5 dollars per office visit, he would be making considerably less than some good general practitioners are making today. And to pay 5 dollars for a medical workup of 1 to 2 hours is preposterous. If such a thing should come about, the specialty of internal medicine would disappear.

"A few prepayment plans are now inserting items in their fee schedules which were proposed by state societies of internal medicine—items described as 'characteristic of the practice of internal medicine.' The internists take the position that if any other physician, not an internist, does the same type of work and spends the same amount of time for this particular service, he should get the same fee. In other words, the item, 'History and Physical Examination—Characteristic of the Practice of Internal Medicine' would be given a substantially higher units value under the Relative Value Scale than an office visit. A consultation would be given so many units value. An office call characteristic of the practice of internal medicine would have a certain number of units value.

"This method of determining fees does not discriminate against the good general practitioner who has actually by his own self-education become a good internist from commanding the same fees if he does the same work."

As is apparent from the above, Dr. Yater is at variance with some of his colleagues, but there are also a large number who agree with him.

★

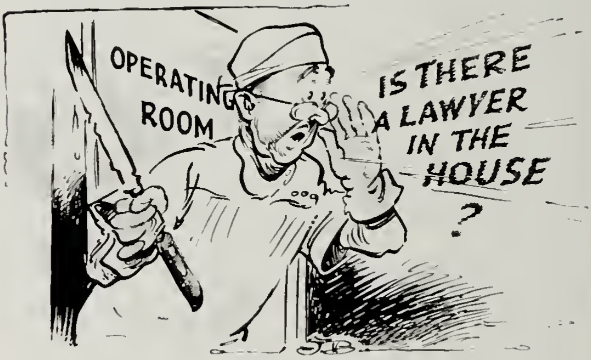
Common Legal Procedures and the Doctor—I.

As previously mentioned in this column, an increasing number of calls are received by the Society's Executive Offices from members seeking information and advice. Many of the inquiries relate to such legal procedures as authorization to disclose information by the patient's physician and consent to surgical operations, especially on minors. Recently a member suggested that it would be helpful if the legal forms used in this connection were published in the MEDICAL ANNALS. It occurred to your Observer that his column might be a proper place for their inclusion.

It should be mentioned that because situations vary considerably, the assistance of the Society's legal counsel is often sought by your Observer. His advice has, on many occasions, proved invaluable. However, most of the queries are of such a nature that his assistance is not required. They are a repetition of a large number of similar queries.

For example, a physician practicing in the District of Columbia is prohibited by law from divulging information about a patient under his care unless he has obtained written authorization from the patient. If the patient is a minor, he must obtain written authorization from the parent or parents. In the event of the death of a patient, the privileged information can only be divulged on personal authority in writing by the deceased individual's executor or legal representative.

There are exceptions to the above. For example, where a crime is involved resulting in the killing or injuring of another person, then the court can order the physician to testify in regard to professional services rendered by him to the patient, which would otherwise be privileged. The concern here, however, is not with exceptions but what is ordinarily required of a physician under circumstances set forth in the beginning. Usually it is simply to obtain written authorization or consent signed by legally authorized persons. A suggested form authorizing the physician to disclose privileged information, developed by the Law Department of the American Medical Association, is reproduced on the opposite page.


OPERATING ROOM
IS THERE A LAWYER IN THE HOUSE ?

It is routine in all hospitals to obtain the patient's consent to a surgical operation. Most use their own forms. The one shown on page 698 was also developed by the AMA's Law Department.

Calls received at the Society's Executive Offices indicate that a number of physicians are uncertain as to legal requirements where consent to an operation on minors is concerned. If a minor has parents, consent should be obtained from them even though the minor is in temporary custody of some other person. Where parents

CONSENT TO OPERATION

PATIENT____________________________________AGE__________________
DATE______________TIME_______A.M. PLACE______________________
P.M.

1. I hereby authorize Dr.______________________________and whomever he may designate as his assistants, to perform upon ____________________________, the following operation:__________________________________ · and if any unforeseen condition arises in the course of the operation calling in his judgment for procedures in addition to or different from those now contemplated, I further request and authorize him to do whatever he deems advisable.

   (*State name of patient or "myself"*)

   (*State nature of prodecure (s) to be performed*)

2. The nature and purpose of the operation, possible alternative methods of treatment, the risks involved, and the possibility of complications have been fully explained to me. I acknowledge that no guarantee or assurance has been made as to the results that may be obtained.

3. I consent to the administration of anesthesia to be applied by or under the direction of Dr. ______________________________, and to the use of such anesthetics as he may deem advisable, with the exception of____ .

   (*State "none," "spinal anesthesia," etc.*

4. I am aware that sterility may result from this operation although such result has not been guaranteed. I know that a sterile person is incapable of parenthood.

5. I consent to the disposal by authorities of the________________________Hospital of any tissues or parts which may be removed.

6. I consent to the taking and publication of any photographs in the course of this operation for the purpose of advancing medical education.

7. For the purpose of advancing medical education, I also consent to the admittance of observers to the operating room.

I CERTIFY THAT I HAVE READ AND FULLY UNDERSTAND THE ABOVE CONSENT TO OPERATION, THAT THE EXPLANATIONS THEREIN REFERRED TO WERE MADE, AND THAT ALL BLANKS OR STATEMENTS REQUIRING INSERTION OR COMPLETION WERE FILLED IN AND INAPPLICABLE PARAGRAPHS, IF ANY, WERE STRICKEN BEFORE I SIGNED.

Signature of patient_____________________________
Signature of patient's
husband or wife_________________________________
When patient is a minor or
incompetent to give consent:
Signature of person
authorized to consent for patient________________________
Relationship to patient____________________________

Witness: ____

Note: This is a general form of consent which will apply to various surgical cases by striking out the portions which are inapplicable. Where the anesthesia is to be administered by a nurse anesthetist, the name of the attending surgeon should be inserted in paragraph 3.

AUTHORIZATION FOR DISCLOSURE OF INFORMATION BY PATIENT'S PHYSICIAN

1. I authorize Dr._________________________________ to disclose complete information to _____________________________________concerning his medical findings and treatment of the undersigned from on or about_____________________19____until date of the conclusion of such treatment.

2. Further, I authorize him to testify, without limitation, as to all of his medical findings and the treatment administered to the undersigned, in any legal action, suit, or proceedings to which I am, or may become a party; and I waive on behalf of myself and any persons who may have an interest in the matter, all provisions of law relating to the disclosure of confidential medical information.

Signed__________________________________

Place___________________________________

Date____________________________________

Witness____

are legally separated or divorced, consent on behalf of the child should be obtained from the parent who has legal custody. Consent must also be obtained when the procedure to which the child is to be subjected is for the benefit of some other person, such as the giving of blood or skin.

Both men and women in the District of Columbia become of age on their twenty-first birthday. There are situations in which both at an earlier age may become "emancipated." Involved legal questions arise as to the relative rights of the parents of the "emancipated" minor where one or the other of them opposes an operation. In such a case the physician should obtain the advice of competent legal counsel.

This is the first in a series of "brevities" devoted to common legal procedures and the forms necessary in connection with them.

★

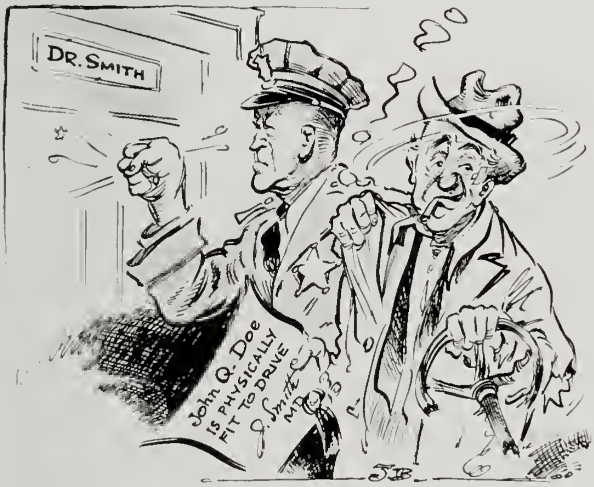
Dangerous Drivers

In an editorial which appeared in the October issue of the MEDICAL ANNALS, entitled "A Challenge to the Medical Profession," Mr. George A. England, Director of Motor Vehicles for the District of Columbia, appealed to the medical profession for guidance in establishing physical standards for the District's automobile drivers. Physicians, he wrote, "can best evaluate the degree of risk that is involved in permitting a person to drive who uses insulin or has heart epilepsy, etc. I am firmly convinced that inevitably a national set of standards will have to be established. This is an invitation and a challenge to the medical profession to do what can be the most constructive job imaginable in the interest of traffic safety."

Encouraging progress, Mr. England reminded your Observer personally, has been made in other states, notably Pennsylvania, where physical standards have been developed with the assistance of the Pennsylvania Medical Society. In a further effort to remove drivers from the highways who cannot meet the state standards, the Assistant Attorney General and General Counsel for the Pennsylvania Department of Health recently informed the Society "that a physician who had examined a person for the purpose of supplying the Department of Revenue [the agency which grants drivers' licenses in Pennsylvania] with certain facts concerning the driver's physical condition may be held liable for injuries and damage sustained in an accident caused by such person."

The following conditions and factors are present if the physician is held responsible:

"1. The physician examined such person to ascertain facts pertaining to that person's physical condition in order for him to be permitted to get a driver's license.


DR. SMITH
John Q. Doe IS PHYSICALLY FIT TO DRIVE
J. Smith MD
JB

2. The physician erred in reporting the person's physical condition.

3. The error was related to the ability of the driver adequately to control a motor vehicle.

4. The error in reporting constituted negligence on the part of the physician.

5. The Department of Revenue, on the basis of the erroneous report, allowed the person to obtain a driver's license or failed to revoke an existing one.

6. Had the physician not erred, the Department would not have permitted the person to drive.

7. The driver became involved in a motor vehicle mishap on account of the physician's negligence in reporting the actual physical condition of the driver to the Department of Revenue.

"All of these conditions must be present. If the examination and report stated the true condition of the person on the day he was examined, there will be no liability. It must be remembered that the accident must have been the result of the condition which the physician failed to report."

As stated in the beginning, there are no physical standards in effect in the District where automobile drivers are concerned. However, if an individual makes an application for a driver's license in the District and reveals a history of heart disease, mental disturbance, stroke, paralysis, fainting and dizzy spells, diabetes, epileptic seizures and convulsions, he must obtain a statement from his family physician stating that he has examined the applicant and finds him physically and mentally qualified to operate an automobile. Such statement is not specific enough, according to Mr. England, to be of value, and he insists that adequate standards are the only solution.

Until such time as standards are adopted, the Medical Advisory Board, composed of members of the Society's Traffic Committee, is serving as a screening body. Upon receipt of an application for a driver's license by the Department of Motor Vehicles and Traffic, in which it is stated that the applicant has one or more of the above disabilities, and to which is attached a statement from his family physician that he is fit to drive, it is referred to the Board for review. If, in the Board's opinion, the applicant is a dangerous driver, his application is rejected. On the other hand, the Board may agree with the family physician that the applicant should be granted a license.

Mr. England pays high tribute to the Committee, which, he states, "has rendered devoted services in evaluating medical evidence on drivers whose physical qualifications have been questioned and brought to our attention. Working tirelessly and shunning personal glory, they have rendered invaluable service to the Department of Motor Vehicles and, consequently, to the community in helping weed out the more obvious risks."

To Dr. Herbert S. Gates, Chairman of the Committee, must go much of the credit. He has rendered tireless and effective service in what is at best an onerous assignment. This is not meant to suggest that his associates have not given unstintingly of their valuable time, but Dr. Gates has "carried the ball" and has done it well.

★

Sports Medicine

"Sports medicine," writes Dr. J. D. G. Troup in *The* (London) *Lancet*, "is not a recognized specialty [in Great Britain] yet the need for it is obvious." Medical centers in which extensive research in sports is being done exist in Finland, Sweden, Russia and West Berlin. However, Dr. Troup admits his country does not lag in sports for lack of medical sports specialists, but he says, ". . . what can be learned from sports has a tremendous bearing on some of the illnesses."

Generally speaking, he observes, the medical profession in Britain limits its activities in the sports field to advice on the prevention of permanent damage and to providing first-aid facilities and rehabilitation after injury.

> "Medicine is not very clever when it comes to coping with the sprains and strains to which athletes are subject," Dr. Troup writes. "If these lesions do not heal on their own, or after a period of rest, the athlete has to give up. There must be many hundreds of athletes and sportsmen who, because of a recurrence of symptoms whenever they begin intensive training after resting, have had to discontinue all but the gentlest activity. Very little is understood of these injuries, and their diagnostic labels are among the most meaningless in all medicine. This is partly because disappointingly little is known about the mechanics of the body, and therefore doctors are correspondingly inept at treating the disabilities which arise from mechanical strains. We know practically nothing of what renders a joint unstable, unbalanced, and hence subject to injury. Consequently, we are in no better position to advise the sportsman how to avoid injury and strain than are his trainers."

Minor injuries and strains, he states, are "closely related" to such conditions as rheumatism, fibrositis, lumbago, and "neuritis." These are the conditions which, he says, take up more of the profession's time than any other single group of diseases, and "they all have one thing in common—they represent deviations from the normal mechanical efficiency of the body."

> "The symptoms of which the athlete complains can be easily cured if he gives up athletics; but the same thing in the tired middle-aged housewife has to be palliated and endured.
>
> "Thus, the more we can learn from the disabilities and difficulties experienced by athletes, the more we are likely to help the tired middle-aged housewife to be less tired and to forget that she is middle-aged. . . ."
>
> * * * * *
>
> "The average young man of sedentary habit, if otherwise healthy, can easily cover a mile in 10 minutes if pushed to it. After a week's training he can probably do it in 6 or 7 minutes; and in a month or so, if driven, in 5 or 6 minutes. But if he wants to run a mile in 4 minutes, he must train intensively for a long time; he would probably have had to begin in his teens, gradually improving his performance as he gained experience of competitive athletics.
>
> "In rather the same way a patient with a disability, such as an osteoarthritic hip, has to go into training if he wishes to overcome the disability and live a normal life. The onset of osteoarthritis in the hip commonly dates back to an injury causing low-back pain and pain and weakness in the leg—an injury which probably caused a sacroiliac lesion or strain. The patient clearly never recovered full function after the injury, and the stiffness of the hip and associated pain developed from that time. In practice, even when the osteoarthritis is advanced, it is worth trying to relieve the loss of function which set off the osteoarthritic processes. An arthritic can gain remarkable relief and improvement if he is prepared to 'go into training.' The trouble is that, once the disability is there, he has to keep in training."

In conclusion, Dr. Troup reports that a large volume of information is available on "how to increase the strength, bulk, and endurance of muscles and on related factors such as reaction time and speed of contraction. But what we want to know is something about the strength of muscles or muscle groups which act on a joint and their relation to injury of that joint, the suppleness of the joint, and all the interrelated factors affecting joints under stress."

Finally, he states that if the medical profession can answer these questions it will be much more effective in treating sports injuries and giving advice in such matters as training methods, physical education, and the prevention of joint degeneration.

At the time this is being written, the AMA-sponsored Second National Conference on the Medical Aspects of Sports, scheduled to be held in Washington, D. C., on November 27, 1960 at the Hotel Statler-Hilton, is still some weeks away. Among the subjects to be discussed at the Conference are training and conditioning, prevention of injuries, recognition, referral and treatment of injuries, and psychology of sports participation. Those who, it is hoped, will attend the Conference are team doctors and athletic department personnel, including trainers and coaches, from colleges and universities in the surrounding area. Dr. William L. Howell will attend the Conference as a representative of the Society's Committee on Public Health.

In such a varied group as this, Dr. Troup's main thesis should come in for limited discussion. It would appear that it deserves more serious consideration from a purely medical aspect by the profession itself.

T. W.

MEDICAL HISTORY OF WAR OFFERED

Many of the medical lessons learned during World War I had to be relearned under fire during World War II because of paucity of distribution of the World War I medical history.

Lieutenant General Leonard D. Heaton, The Army Surgeon General, in an endeavor to prevent this costly relearning process in the unhappy event of another war has directed the preparation, publication, and distribution of the "History of the Medical Department, United States Army, in World War II." General Heaton is particularly anxious that information of the existence and availability of this History be circulated widely among the profession, both military and civilian.

Of the 48 volumes programmed for the series, 15 have been published and can be purchased at modest cost from The Superintendent of Documents, Government Printing Office, Washington 25, D. C. The set of 15 volumes may be purchased for $66.50 or individual volumes can be obtained at the prices listed below. Commanding officers of medical units may requisition copies for their Medical Units libraries by submitting DA Form 17 directly to The Historical Unit, U. S. Army Medical Service, Washington 12, D. C., Attention: Promotion Branch.

Volumes now available are:

"General Surgery," edited by Michael E. DeBakey, M.D. $4.25.

"Neurosurgery," Volume I (Head Injuries), edited by R. Glen Spurling, M.D., and Barnes Woodhall, M.D. $5.00.

"Neurosurgery," Volume II (Spinal Cord and Peripheral Nerve Injuries), edited by R. Glen Spurling, M.D., and Barnes Woodhall, M.D. $7.00.

"Hand Surgery," edited by Sterling Bunnell, M.D. $3.75.

"Ophthalmology and Otolaryngology," edited by M. Elliott Randolph, M.D., and Norton Canfield, M.D. $5.00.

"Orthopedic Surgery, European Theater of Operations," edited by Mather Cleveland, M.D. $4.00.

"Orthopedic Surgery, Mediterranean Theater of Operations," by Oscar P. Hampton, M.D. $4.00.

"Physiologic Effects of Wounds," edited by Fred W. Rankin, M.D., and Michael E. DeBakey, M.D. $3.50.

"Vascular Surgery," edited by Daniel C. Elkin, M.D., and Michael E. DeBakey, M.D. $4.25.

"Cold Injury, Ground Type," by Tom F. Whayne, M.D., and Michael E. DeBakey, M.D. $6.25.

"Dental Service," by George F. Jeffcott, D.M.D. $3.25.

"Environmental Hygiene," by James Stevens Simmons, M.D., and others. $3.50.

"Personal Health Measures and Immunization," by John E. Gordon, M.D., Tom F. Whayne, M.D., and others. $3.25.

"Communicable Diseases," Volume IV, by John E. Gordon, M.D., Joseph Stokes, M.D., and others. $5.50.

"Hospitalization and Evacuation, Zone of Interior," by Clarence McKittrick Smith. $4.00.

PARTICIPANTS IN THE COUNCIL FORUM ON GENERAL PROBLEMS IN MEDICAL PRACTICE

Here are the guest speakers at the Forum on General Problems in Medical Practice and some of the officials of the sponsoring organization, The Medical Council of the Washington Metropolitan Area. The Forum was held in the Presidential Ballroom of the Hotel Statler-Hilton on October 29.

(1) Dr. Thomas E. Rardin, of Columbus, Ohio, Vice Chairman of the AMA's Section on General Practice; (2) Dr. William J. Reals, of Wichita, Kan.; (3) Theodore Wiprud, Executive Director of the Medical Society of the District of Columbia, moderating a panel discussion on "Doctors and Prepaid Medical Care"; participants are (left to right): Jerome Pollack, of Detroit, Program Consultant, Social Security Department, United Automobile, Aircraft and Agricultural Implement Workers of America, AFL-CIO; Frank Carbo, of Washington, Chairman of the Health Insurance Council of D. C.; and Dr. Charles G. Hayden, of Boston, Executive Director of the Massachusetts Medical Service.

(4) Dr. Louis A. Krause, of Baltimore, Professor of Clinical Medicine, University of Maryland School of Medicine; (5) Dr. Henry P. Laughlin (left), President of the Medical Council, who presided at the morning session, and Dr. W. Benson Harer, of Upper Darby, Pa., Trustee and Councilor of the Pennsylvania Medical Society; (6) Dr. Thomas E. Haggerty, of Falls Church, Va., Chairman of the Program Committee of the Medical Council, presiding officer at the afternoon session; (7) Ray E. Brown, of Chicago, Superintendent of the University of Chicago Clinics; (8) Dr. Stephen J. Sheehy, of Arlington, Va., Vice President of the Medical Council; (9) Dr. Leo H. Bartemeifr, of Baltimore, Medical Director of the Seton Psychiatric Institute.

YESTERDAY'S MEMORIES AND TOMORROW'S DREAMS IN MEDICINE*

ALEC HORWITZ, M.D., F.A.C.S.

Clinical Professor of Surgery, George Washington University School of Medicine

A Lebanese poet has said: ". . . yesterday is but today's memory and tomorrow is but today's dream."

My yesterday was some 40-odd years ago, in the early 1920's, when I, too, embarked on a medical career. Come with me on a kaleidoscopic tour, or perhaps a bird's-eye view, or maybe, better still, a U-2 view of these 40-odd years.

Let us scan the triumphant twenties, and the uneasy peace after 8 million dead in a war "to make the world safe for democracy"; the gay, madcap twenties, and Prohibition, bathtub gin, and speakeasies, and superheterodyne radios; the Teapot Dome Scandal and the death of a President and "keeping cool with Coolidge"; Lindbergh and the Spirit of St. Louis and oceans shrinking. The twenties must have been unusual, for even the Washington Senators won their first American League Pennant. Who can forget the optimistic twenties and huge paper profits and the promise of "a chicken in every pot"; "black Thursday" on Wall Street, and suicides on Friday?

These were the twenties, with the aftermath of the influenza epidemic which maimed with encephalitis many of those whom it did not kill. Banting and Best and insulin were too late by a scant few months to save my histology professor from diabetic coma; and Whipple, Minot and Murphy through serendipity gave liver for anemia and were too late to save my high school principal from death due to pernicious anemia. Who can remember chronic osteomyelitis and maggots; pneumonia and the first use of oxygen tents; empyema and closed drainage; toxic goiters and thyroid crises and Plummer and iodine; nurses pouring ether, and surgeons in a hurry? Boldness, dexterity, speed and showmanship were the hallmark of the master surgeon in the twenties.

Yesterday is but today's memory of the troublesome, trying thirties and the depression. Fresh in our memory are F.D.R. and the New Deal, bank holidays, and C.C.C. camps and raw beer. The Japanese invade Manchuria, and Italy, Ethiopia, and thus was sounded the death knell of the League of Nations. Black-shirts and brown-shirts hail a madman running amok in Germany. Love at long last and King Edward VIII abdicates: Long live George VI! Munich and the transient, uneasy peace is followed by the invasion of Poland and the "phony war." Sieg Heil! and Auschwitz, Belsen, Buchenwald, Dachau, and tatooed living dead bear witness to man's indescribable inhumanity to man. Sieg Heil! and a modern Moloch extorts millions of burnt offerings for soap and fertilizer.

The thirties are terrifying, but there is balm in Gilead. Now we have endotracheal anesthesia and tribromethanol, and sodium pentothal, and fluid replacement, and blood transfusions for a bleeding world; nasogastric suction and electrolyte balance, thoracoplasty for tuberculosis, and pneumonectomy; cholecystography and vitamin K for a jaundiced world. We also have the sulfa drugs along with agranulocytosis and anuria, and, finally, encephalography, prefrontal lobotomy and convulsive therapy for a world depressed.

'Twas but yesterday—and the memory of the fateful forties. Who can forget the fall of France, Dunkirk, "We shall fight them on the beaches" and "England's finest hour," the Battle of Britain, and "never was so much owed by so many to so few"? Who can ever forget that desecrated Sunday and Pearl Harbor, "a day that shall live in infamy"; "Praise the Lord and pass the ammunition"; Bataan, Corregidor and "I shall return"? A day of reckoning comes with the Battle of Midway, Casablanca, Salerno and Anzio; Orel and Rostov and Stalingrad, D-Day and Omaha Beach, and, finally, V-E Day and D-P camps.

But the struggle is only half over and accounts are yet to be settled in the Pacific. Witness the Battle of Leyte Gulf and Saipan, Iwo Jima, and Kamikazes and human torches diving into the sea; Hiroshima, Nagasaki and the atom bomb and V-J Day, and 37 million who also "lived and loved" now lie dead, but not only where poppies grow. And the Iron Curtain falls. A tired world is now groping, yearning and striving for peace, and the United Nations is born; "If I forget thee, O Jerusalem, let my right hand forget her cunning," and the State of Israel is also born.

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* Address before the 1960 Class at the Closing Assembly of The George Washington University School of Medicine, May 31, 1960.

These, too, are the fateful forties when physicians are pouring plasma and hepatitis; treating burns with tannic acid and triple dyes. And there is a rift in the clouds and rainbows in the sky, and Fleming, Florey and Chain and penicillin. Penicillin and empty children's hospitals, and where are the infectious diseases? Penicillin, and where is empyema and the pneumonia crises and mastoiditis and osteomyelitis? Where is the dread of peritonitis and meningitis? Penicillin, and cases of syphilis and gonorrhea and Charcot's joints dwindle in number. And hips are nailed so that the old may walk again. Now there is balanced anesthesia, but also cardiac arrest, open chest surgery, and portacaval shunts and Whipple operations. These are the hopeful forties, which gave us Waksman and streptomycin, isoniazid, and PAS and closed tubercular sanatoria.

"Yesterday is but today's memory"—and the 1950's were but yesterday. The fabulous fifties are too recent to forget the Korean "police action," the Cold War and peregrinating politicians; McCarthyism and friend denouncing friend, and phony quiz shows. Rockets and dead dogs are circling the globe; the moon is struck, and satellites and television roam the sky. And voices out of the firmament are crying out "Peace on earth" when there is no peace.

The bold fifties, and physicians are becoming bolder; kidneys are being transplanted in monovular twins, and heart and lung and kidney machines and hypothermia open new fields for the surgeon. Hearts are mended and cold feet made warm, and old broken hips are replaced. There are isotopes and steroids and chemotherapy; and Salk vaccine and fewer withered limbs. Detached retinas are reattached, and ears are provided with windows and audiometers so that the deaf may hear. We are inundated with antibiotics and more antibiotics and resistant staphylococcic infections. We have antihypertensives, anticoagulants, newer diuretics and hormones so that death may be delayed; and, finally, tranquilizers to soothe a nerve-wracked world.

"And tomorrow is but today's dream." What about tomorrow? Are we building a modern Tower of Babel with confusion as our reward? Or is our end to be a Sodom and Gomorrah-like conflagration? Shall we seek a fertile Adam out of a Colorado lead mine so that "seven women shall take hold of one man," or go back to the primitive life of Butler's "Erewhon" where illness is considered a crime against the state? Or shall reason triumph and, with the advances in nucleic acid chemistry and the biosynthesis of RNA and DNA a near-reality, shall cancer be conquered? Shall we finally understand the little flower in the crannied wall and know what God and man are? With microsurgery of the genes and chromosomes an accomplished fact, shall we empty our mental institutions? Or shall we open the predestination centers of Huxley's "Brave New World" and create alphas, betas and gammas?

Or perhaps arteries will no longer harden, the immunity barrier will be broken, and worn-out organs be replaced so that man may die old and yet be in his prime, as Moses at 120 whose "eyes were undimmed and whose natural forces had not abated."

But we are now in the sensational sixties, and more practical and personal problems face us. Will they be the successful sixties for you? What of your personal tomorrow? Unless you prefer to live a cloistered life in a laboratory, you will perforce meet with patients and other physicians. Your relationship with them will determine how successful you will be in your chosen field.

The patient of today is the same patient of 40 years ago, craving sympathy, kindness and understanding. Yet the patient of today differs in some respects. You will find him better informed through the press, radio and television about the latest advances in the medical field. He will be misinformed as well by the sensational press, so that distorted truths and half-truths will cause him to suffer from Billing's disease, "Knowing a lot of what ain't so." More often than not he will be insured under some plan, and he will make greater and earlier demands for your services and be more insistent on hospital care.

And more of the patients of today, because of the great strides of unfettered medical research, will be in the older age group. Geriatric medicine will assume a more important role in the medical care program. You will come to appreciate the meaning of the fifth commandment, "Honor thy father and thy mother . . . ," and the poignant prayer, "O cast us not off in our old age." You will also learn that one mother can take care of 10 children, but that 10 children often can't or won't take care of one mother.

With the increased need and demand for more complicated and newer diagnostic procedures, with the increased use of costly laboratory services, and more costly drugs, the cost of hospitalization can and does assume astronomic proportions. Whether we wish it or not, medical economics will be an important factor in the kind of medical care you will be able to give to your patients.

If you would help discourage this tendency of rising costs of medical care, if you would help save the voluntary insurance programs, if you would help keep the unfortunate middle-income group patient from becoming insolvent and bitter toward the medical profession, then you will (1) recognize the difference between your or the patient's convenience and the real need for hospitalization; (2) make use of the five senses you were born with and the sixth sense—common sense—before ordering a multitude of diagnostic procedures, many of which can in no way aid you in your diagnosis or alter your treatment; (3) scrutinize with care and inquire not only as to the cost of many of the exotic drugs, but also as to their effectiveness; (4) recognize that the hospital is not a luxury hotel or a nursing home; it is for the ill and not for those who prefer to take up valuable beds in order not to discommode relatives or family.

As for the care of your patients, I shall not presume to advise you to put your patient's interest first. Nor should it be necessary for me to remind you to thoroughly examine your patient. Listen to him, for, as a famous clinician has said, he is trying to tell you the diagnosis. Remember Osler's advice not only to study the kind of disease the man has, but the kind of man that has the disease.

Much has been said about cultivating a good bedside manner. As you evaluate your patient and his reaction to your questions, remember you are under his scrutiny, too. He will weigh each word you utter, will note your every nuance, your facial expression and the inflection in your voice. But after all, the best bedside manner is being yourself. The type of personality you possess will determine the type of patient you will attract.

Aside from proficiency, many are the attributes of the successful physician—a suave manner, a ready wit, a confident air, a sunny disposition, but, above all, is love of mankind. For as Paul who was Saul has said, "If I possess all knowledge . . . but have no real love for my fellow man, I am nothing." Sincerity and integrity in your professional conduct and interest in your patients' welfare will inevitably lead you to practice the maxim of Confucius, "What you do not want done to yourself, do not do to others."

Whether you choose private, group or institutional practice, you will meet other physicians. In your relations with your colleagues, be pleasant and just and humble; remember courtesy is the essence of medical ethics. Be wary of any who disparage them lest you be the next to suffer. You may vehemently disagree without villifying. Remember about the mote and the beam and judge not. As has been said of this litigious age, the genesis of every lawsuit has the 3 ingredients of a dissatisfied patient, a jealous doctor, and a hungry lawyer. The successful physician has the confidence of his patients and the respect of his colleagues.

May I digress at this point to give you a concrete example of how litigation-conscious we are now. During a lengthy operation, one of our chief anesthesiologists was supervising an endotracheal anesthetic. To his horror he noticed that the upper denture was cracked. He immediately envisioned an expensive lawsuit and began to ponder on how best to remedy the situation. Suddenly a brilliant thought occurred to him. He rushed the broken dentures to his cousin Clem, who was a dentist. He, in turn, after some cajolery, entreaties, and a little cash, prevailed upon a dental technician to make an emergency repair of the broken plate. The anesthesiologist then hurried back to the hospital and, to his relief, found the patient still asleep. The following day on his postoperative visit, the patient said to him, "I'll never cease to be amazed at the great strides made in medicine, but I must admit that this time something very extraordinary has happened to me. I could have sworn I entered this hospital with a broken denture and it appears to be good as new now."

And now, what about yourselves? You are full of hopes, ideals and aspirations. Many of you may be indecisive about your future plans. I would counsel you to consider carefully, but once you have chosen your particular path, follow Carlyle's gospel, "Know thy work and do it." Don't become cynical, even though at times you may be disillusioned. Are you perhaps discouraged because everything seems to have gone awry? Remember, "even this shall pass away."

You are now about to apply that knowledge which you were so adept at acquiring in order to pass examinations. But you must be ready to unlearn, too, those things which you have learned and which time will make no longer valid. From now on you must continue to learn that which will please and profit you. Let not the strait jacket of specialization constrain you from attaining a wider knowledge of medicine. By the same token, self-absorption in your profession should not preclude you from broadening your knowledge in other fields. The author of "The House of Intellect" has said, "Higher education is a privilege the acceptance of which binds the taker." As members of a learned profession, you have an obligation to your alma mater, to your community, and to your country. In recent years there has been a denigration of the medical profession. By precept and practice you should help reverse that trend. You can accomplish that by remembering:

> ". . . to thine own self be true,
> And it must follow, as the night the day,
> Thou canst not then be false to any man."

It was Koheleth in the last chapter of Ecclesiastes who appropriately said, "And much preaching is a weariness of the flesh." So I shall leave you with the parental blessing my father of revered memory gave me when we were under the wedding canopy, "May the healing angel, Raphael, stand with you at the bedside of your patients, that they may all be healed."

Correspondence

Washington, D. C., October 20, 1960

To the Editor:

With the varied requests physicians receive these days, some doctors may wish to take advantage of the services of the new, nonprofit Marriage Preparation Institute, National Capital Area.

The M.P.I. was organized in the interest of better marriage and family life, with the belief that professional guidance can help make a good marriage even better.

The Institute presents series of 4 meetings of 2 hours each on succeeding Tuesday evenings dealing with Spiritual Harmony, Money Management, Physical Harmony, and Interpersonal Relations in Marriage. Participation is limited to 12 couples, or 24 individuals. The information and discussion have been designed especially for engaged and newly wed couples. Registration is $10.00 per couple, or $7.50 per individual.

The first series was held in October at Wesley Theological Seminary and had a full registration. The November series is currently being held at the same place. Of the 8 specialists used in these first 2 series, 3 are local physicians: Dr. Alice B. Brigham, Dr. Jed W. Pearson, Jr., and Dr. Walter R. Stokes.

This is the beginning of an on-going program we hope will be of increasing service to all concerned with better family life. Physicians who wish to use the M.P.I. as an extension of their service by referring patients can do so by calling any of the following sponsors: Council of Churches, National Capital Area—Decatur 2-3132; Planned Parenthood Association of D.C.—Dupont 7-8787; Wesley Theological Seminary and American University—Emerson 3-2171.

The officers of the Marriage Preparation Institute and their respective organizational positions are: Chairman, Dr. Frederick E. Reissig, Executive Secretary of the Council of Churches, National Capital Area; Vice Chairman, Dr. Haskell M. Miller, Professor of Sociology and Christian Ethics at Wesley Theological Seminary; Treasurer, Mr. Chester Jones, Associate Minister of Calvary Baptist Church; and Executive Director, Mr. Bryson S. Couvillon, community worker, Planned Parenthood Association of D.C.

If these facts about the M.P.I. can be disseminated through the Annals we would appreciate it very much.

Sincerely,
Bryson S. Couvillon
Executive Director, Marriage Preparation Institute

Washington, D.C., October 13, 1960

To Mr. Wiprud:

On behalf of the Summer Outings Committee of Family and Child Services, I wish to thank the Medical Society for arranging for doctors to examine underprivileged children who were leaving for our summer camps, Goodwill and Pleasant. It was through the efforts of those doctors that approximately 750 children were able to get away from hot city streets to enjoy 12 days of fun at camp.

We would like to especially thank Mrs. Holdridge for her efforts in contacting these doctors and her time spent contacting my office.

Once again let me express my appreciation for the help from the Medical Society.

Sincerely,
George N. Greene, Jr.
Group Work Director, Family and Child Services

DOCTOR: DO YOUR CANCER PATIENTS NEED FINANCIAL AID?

The American Cancer Society, District of Columbia Division, Inc., as a result of a grant from the Estate of Alexander and Margaret Stewart, is able to assist certain needy cancer patients in payment of expenses for hospitalization and treatment.

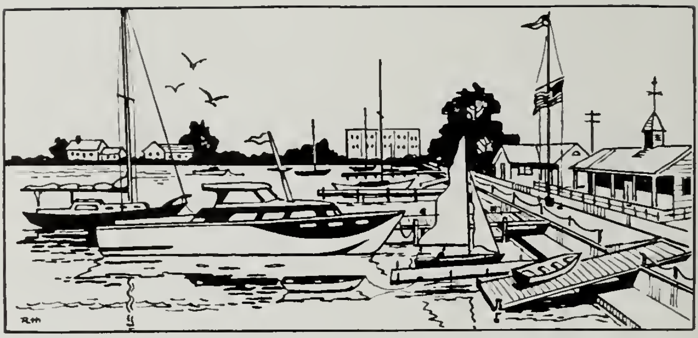
PATIENTS ARE ELIGIBLE—if they reside in Metropolitan Washington and are receiving treatment in the District of Columbia; if they are not eligible for assistance from public welfare or community health funds; and if there has been a diagnosis of cancer, confirmed by clinical findings.

THE AMOUNT OF AID granted is determined by the Cancer Aid Plan Committee and may cover all or part of expenses incident to hospitalization and major treatment. It does not extend to expenses incident to diagnosis, private rooms, private nurses, office care, or terminal care.

ONLY YOU CAN APPLY. Applications must be made by a licensed physician practicing in Metropolitan Washington. The patient or those acting for him must furnish such information as required to determine eligibility for aid.

FOR COMPLETE INFORMATION ON THIS AND OTHER SERVICES FOR CANCER PATIENTS CALL OR WRITE

American Cancer Society
District of Columbia Division, Inc.
810 18th Street, N.W.
Washington 6, D. C.
EXecutive 3-3690



ON THE LIGHTER SIDE

Now that the Christmas Season is upon us we look back to our October and November resolutions to prepare for Christmas *early this year*, and wish to Moses that we had followed through to a quiet, relaxed and restful Christmas Evening with all our gifts gaily wrapped and assigned and delivered, all our Christmas greeting cards long gone in the mail, and our house all beautifully decorated.

What a Utopian dream that would be! Imagine, if you will, spending the entire day before Christmas leisurely dropping in on your harassed and frenzied friends, relatives and neighbors, and bringing with you that nonchalance and charm of a man (or woman) who has no last-minute Christmas chores to do. No forgotten gifts to wrap—no trees to trim—no holly to hang—no lights to string—no list to check and recheck—no Christmas greeting cards to mail—everything done and completed and finished!

That, my friend, is the ultimate in Christmas preparation. And that is what we all strive to do each year, but somehow never seem to quite make it, probably due to the weakness of our everloving will and the innate laziness of our pallid flesh.

Christmas Eve could be and should be a time for meditation and prayer in the place of worship of our choice. It may be a time for fun and laughter at a Christmas party with friends. Or a time for quietness and relaxation in pajamas and robe lounging in front of the TV, sipping warm and fragrant spiced cider, and looking and listening to the evening Christmas programs until the calm drowsiness of the night overtakes the consciousness and we slip into deep slumber.

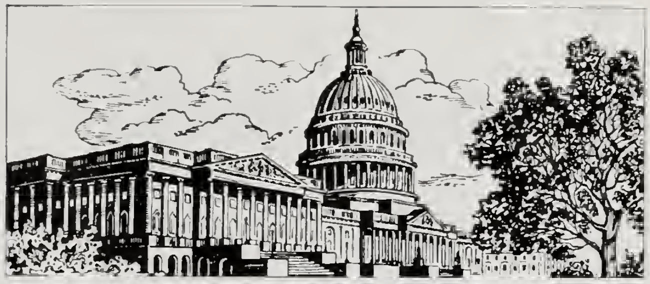
A good night's sleep on Christmas Eve may make a new man out of you. Certainly the next morning the old brain cells are clicking into place with alacrity. The rested muscles and sinews feel strong and ready for action. The digestive system is percolating just fine and the plumbing is great. The eyes are clear and bright, the hand is steady, and the gait is sure.

Of course, by staying to home and going to bed, you might miss the clanging gongs and trip hammers inside your skull bone when you get up the next morning. You could miss the crawling, hairy, caterpillar feel of your thickened tongue. You might not recognize the beautiful network of blood that is shot all through your bleary eyes. It is possible that you might miss the queeziness and burning in the pit of your stomach with the running, repeated trips to the overworked john that leaves your caboose feeling like the proverbial dog that got the turpentine treatment. Then, again, you might miss the dryness of your mouth, the quivering of your legs, and the shaking of your hands—if you stay at home Christmas Eve and get a good night's sleep.

But you say, "After all, friend, what is Christmas Eve for if not to be convivial with friend and foe?" Well, that is a good question and I agree with you; of what value is Christmas Eve if you can't live it up a little? Certainly there are other and more important values attached to the Eve before Christmas besides living it up. Everyone knows Whose birthday we celebrate on the day of Christmas, and what better value could there be than to approach His day with a clear head and a meditating heart.

For many real and cogent reasons, the night of Christmas Eve has always been a time of utter fatigue and bone-tiredness to me, and I have always had a real desire to hit the sack after a very busy day of catching up on all the necessary things that

(*Continued on page 716*)



NEWS & PERSONALS

Meetings

Dr. Allan C. Barnes, Professor of Obstetrics and Gynecology of Johns Hopkins University School of Medicine and Associate Editor of the *American Journal of Obstetrics and Gynecology*, will deliver the **Ford Foundation Lectureship** on January 10, 1961, at 8:15 p.m., in the auditorium of the Washington Hospital Center. This Lectureship is sponsored by the Ford Foundation of America and the Departments of Obstetrics and Gynecology of the Washington Hospital Center.

Dr. Barnes' topic will be a timely discussion of one of the important aspects of gynecology. It will be of interest to general surgeons and general practitioners, as well as to specialists in the field. All physicians and medical students are cordially invited.

The first Annual Trauma Symposium, sponsored by the District Chapter, American College of Surgeons, will be held in the District Medical Society's auditorium on January 18, at 8 p.m. "The Patient with Multiple Injuries" will be the topic for discussion. Dr. Robert H. Kennedy, of New York City, will be the guest moderator.

Guest speaker at the meeting of the **Washington Psychiatric Society**, January 27, 1961, will be Dr. Ray Bridwhistle, Professor of Research in Anthropology, Department of Psychiatry, at Temple Medical Center in Philadelphia. His subject will be "Communication Theory." The meeting will be held in the auditorium of the D.C. Medical Society, beginning at 8:30 p.m., and is open to all physicians.

General News

The Executive Board of the Medical Society of the District of Columbia held its regular meeting on October 24, 1960, with Dr. W. Ross Morris, Chairman, presiding. At the request of Dr. Oscar B. Hunter, Jr., Councilor of the Southern Medical Association, the Board voted to extend an invitation to the Southern Medical Association to hold its 1966 meeting in Washington.

The Board voted to recommend that Dr. Brooks G. Brown succeed Dr. A. Magruder MacDonald as a member of the Board of Trustees of Group Hospitalization, Inc., for a 5-year term. Dr. MacDonald has completed 10 years of service on the Board of GHI.

Dr. W. Dabney Jarman was selected to serve on the Board of Trustees of Medical Service of the District of Columbia for a 3-year term. He will succeed Dr. James A. Dusbabek, who has served on the Board for the past 9 years.

Dr. Howard C. Pierpont and Dr. Charles A. Hufnagel will be asked to represent the Society on the Committee for Health and Research. These appointments were made at the request of Dr. Calvin T. Klopp, who was assigned the chairmanship of a nominating committee to select a new chairman to succeed Dr. Charles F. Morgan and to reactivate the Committee.

The Board approved President Alfaro's selection of Drs. C. Willard Camalier, Jr., Brooks G. Brown, and Edward W. Nicklas as participants in a meet-

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Information, through which requests for speakers for lay groups, including radio programs, can be filled.

Date	*Speaker*	*Subject or Title*	*Organization*
September 7	Dr. Elizabeth Parker	Commencement Address	Alexandria Hospital School of Nursing
September 28	Dr. Charlotte P. Donlan	Radiation Therapy, Yesterday and Today	Alexandria Unit, American Cancer Society
October 13	Dr. Charles P. Cake, Dr. Ross Taggart, and Dr. Moe Weiss, panelists	Symposium on Metropolitan Problems	Metropolitan Washington Tuberculosis Conference
	Dr. Francis J. Murray, panelist	Symposium: New Thoughts on Old Problems	
October 19	Dr. Julius Schreiber	Emotional Factors in Prejudice and Discrimination	B'nai Israel Congregation
November 1	Dr. Elizabeth Parker	Meaning of Seven Ages of Woman	American Association of University Women, Mt. Vernon and Alexandria, Virginia branches
November 8	Dr. Elizabeth Parker	Meaning of Seven Ages of Woman	Woman's Auxiliary to the Fairfax County Medical Society
November 15	Dr. Elizabeth Parker	Meaning of Seven Ages of Woman	Town Club, Chevy Chase, Md.
November 17	Dr. Winfred Overholser, moderator Dr. Z. M. Lebensohn, panelist	Panel Discussion on Mental Illness and the Law	Memorial Lecture Program, Jewish Community Center

ing of the American Medical Associations' Committee on Medical Care for Industrial Workers, which was held at the Hotel Statler-Hilton in Washington on November 12. Medical directors of union and consumer-sponsored medical care plans were invited to attend this meeting, as well as medical directors representing Blue Shield and the insurance industry.

It was reported to the Board that Dr. Nicklas, Chairman of the Committee on Medical Care, represented the Society at a meeting of the AMA's Committee on Indigent Care, which convened at the Mayflower Hotel, October 14 and 15, under the auspices of the Council on Medical Service.

The District of Columbia has been allocated 12 delegates to the **1961 White House Conference on Aging,** to be held in Washington, January 9–12. Members of the D. C. Medical Society who will participate are: Dr. Jack Kleh, Chairman of the D. C. Council on Aging; Dr. Andrew G. Prandoni, Chairman, Health Committee, D. C. Council on Aging; Dr. Otis R. Farley, Administrator, St. Elizabeths Hospital; Dr. Joseph L. Johnson, member of Steering Committee, D. C. Council on Aging; Dr. Daniel L. Finucane, Director, D. C. Department of Public Health; and Theodore Wiprud, Executive Director of the Medical Society.

Other appointees to the Conference are: Dr. Edna H. Treasure, Executive Director, D. C. Council on Aging; Dr. Gerard M. Shea, D. C. Director of Public Welfare; the Reverend Glen A. Kirsch, Chairman, Housing Committee, D. C. Council on Aging; Mr. Milo F. Christiansen, Superintendent of Recreation, D. C.; Mr. Glenn E. McLaughlin, Export-Import Bank of Washington; and Mr. Francis A. Gregory, Assistant Superintendent of Adult Education, D. C. Public Schools.

These appointments were approved by the Commissioners of the District of Columbia on September 20.

The Committee on Motion Pictures of the American College of Chest Physicians is interested in learning about new films on diseases of the chest (heart and/or lungs) for possible presentation at the 27th Annual Meeting of the College in New York City, June 22–26, 1961.

Films accepted for presentation in the annual motion picture program are eligible for the 1961 Film Contest. The Committee is also interested in reviewing new motion pictures for inclusion in the Approved Film List of ACCP.

Physicians are invited to forward all pertinent information concerning their films to Dr. Paul H. Holinger, Chairman, Committee on Motion Pictures, American College of Chest Physicians, 112 East Chestnut Street, Chicago 11, Illinois.

The Alumni Association of the District of Columbia General Hospital is trying to locate and identify former interns, residents, fellows and medical officers of the institution. It is urgently requested that those who have been affiliated with this Hospital contact the Membership Committee of the Alumni Association, Washington 3, D. C.

The Board of Trustees of George Washington University has approved the construction of a new $3 million addition to its Hospital, to begin next year. In May the Board approved plans to develop a 5-block area about the present Hospital into a major medical center, to be completed, if possible, by 1970. The most immediate needs were listed as an addition to the University Hospital, a new School of Medicine, and a University Clinics building.

Mrs. Agnes E. Meyer, widow of the late Chairman of the Board of the *Washington Post*, Eugene Meyer, presented the Board with a gift of $1 million for the hospital addition. With this amount the University will be near its goal of $1.5 million with which to seek matching funds from the Federal Government. In appreciation of Mrs. Meyer's gift, it was voted to name the addition "The Eugene Meyer Pavilion."

NICHOLS AWARD TO SERVICE GUILD

Mrs. Robert Young, President of The Service Guild of Washington, receives the John Benjamin Nichols Award from Dr. Victor R. Alfaro, President of the Medical Society of the District of Columbia. The presentation was made at a luncheon held in connection with the Forum on General Problems in Medical Practice, sponsored by The Medical Council of the Washington Metropolitan Area, at the Hotel Statler-Hilton, October 29.

The present 400-bed hospital at Washington Circle was completed by the Federal Government in 1948 at a cost of $3 million. The new addition will run along 22nd Street, to the rear of the present building. It will add 100 hospital beds and new operating-room facilities, and will provide additional laboratories for research, teaching and clinical services.

Acting President Colclough expressed the hope that the Pavilion will be begun before the fall of 1961 and that the new building might be in use by the middle of 1963.

The Public Health Service announces that the National Institutes of Health has made **94 grants,** totaling almost $2 million, to private institutions throughout the United States for research in various aspects of aging.

Children's Hospital Research Foundation, of Washington, D. C., will benefit in the amount of $13,994. This sum will be used by Drs. Leonard B. Berman and John C. Houck for studies on the "enzymatic dissection of the human and animal kidney." Georgetown University will receive $15,477 for studies by Dr. Ira Singer on the "vitamin changes with hemoprotozoan infections," and George Washington University, $5,184 for studies by Dr. Ira R. Telford on "human bone growth rates determined with tetracyclines."

Georgetown University is also the recipient of a PHS grant in the amount of $17,000 to enable Dr. Roger Baker, Director of the Department of Urology, to continue studies under way on the regeneration of the urinary tract.

Miss Mary E. Switzer, Director of Vocational Rehabilitation of the U. S. Department of Health, Education, and Welfare, was one of the two 1960 winners of Albert Lasker Awards for services to the physically handicapped. In addition to a citation, Miss Switzer received a silver statuette and a $2,500 prize during the Eighth World Congress of the International Society for the Welfare of Cripples in New York City, August 29–September 2.

Miss Switzer has been vocational rehabilitation director of HEW for 10 years. She has been with the Federal Security Agency since its establishment in 1939, working to expand public health and welfare programs. She represented the United States at the first international health conference.

Personals

Dr. Allen C. Cross has accepted the full-time position of Medical Director of the U. S. Government Printing Office. He began his new duties on October 24.

A Washingtonian, Dr. Cross has been engaged in the general practice of medicine in Southeast Washington for the past 25 years. He graduated from George Washington University School of Medicine in 1935 and continued his medical education with postgraduate studies at Harvard and George Washington. He served for 3 years in the Army Medical Corps during World War II.

Of an inventive turn of mind, Dr. Cross designed the Venti-Breather for mouth-to-mouth resuscitation. An article by him on the subject of emergency resuscitation appears in this issue of the Medical Annals. Dr. Cross presented a paper on the same subject, November 30, during the recent Clinical Meeting of the American Medical Association.

Dr. R. Lomax Wells attended the 20th Annual Congress on Industrial Health, sponsored by the American Medical Association, in Charlotte, North Carolina, October 10–12. At the Joint Conference of the Chairmen of the State Medical Societies' Committees on Industrial Health, he represented the D. C. Medical Society. Dr. Wells accepted membership on the Public and Professional Affairs Committee of the AMA Council on Occupational Health.

Dr. Robert H. Harmon was inducted into the Hall of Fame of the GW Lettermen's Club, on November 5, at a dinner meeting at Arlington Towers. This is an honor for former George Washington athletes who have achieved distinction since graduation.

Dr. Harmon was a pole-vaulter at George Washington in the early 1920's. As an able practitioner of medicine he has brought credit to his profession and to his Alma Mater; to the public and in music circles he is well known for his direction of the George Washington Glee Club since 1924 and for founding the Traveling Troubadours. The latter have toured military installations throughout the world since 1950 and recently returned from an 8 weeks' run at Radio City in New York. The Troubadours entertained at the dinner, which was a feature of GW's homecoming celebration.

Dr. John G. Ball, of Bethesda, Associate member of the Medical Society of the District of Columbia, is one of the newly elected directors of the Maryland Academy of General Practice.

Approximately 1,175 surgeons were inducted into fellowship in the American College of Surgeons at the Clinical Congress in San Francisco, October 14. Among those physicians were 7 members of the

D. C. Medical Society: **Drs. William H. Cooper, Erman W. Edgecombe, Gordon S. Letterman, J. Winthrop Peabody, Jr., Bernard F. Peacock, John F. Potter, and Maxine Ann Schurter.** All are Active members of the Society except Dr. Peacock, who is an Associate member.

Membership

The following applicants for membership were duly elected to membership by the Executive Board, October 24, 1960, in accord with Chapter II, Article VIII, of the Constitution and By-laws of the Society.

Active Members

Louis B. Balla, 9502 Hale Place, Silver Spring, Md.
Clifford R. Booker, Freedmen's Hospital
Clifton R. Brooks, Washington Clinic
Julius S. Conner, 1253 Girard Street, N.E.
Edna F. Fleischmann, 9522 Forest Road, Bethesda, Md.
George W. Hyatt, 4415 Franklin Street, Kensington, Md.
Thayer M. Mackenzie, 1712 Rhode Island Avenue, N.W.
Raymond L. Standard, 1390 Bryant Street, N.E.

Associate Members

Solomon E. Barr, 9268 Piney Branch Road, Silver Spring, Md.
Gene U. Cohen, 931 Pershing Drive, Silver Spring, Md.
Liselotte Hochholzer, D. C. General Hospital
Robert Kramer, 1703 East-West Highway, Silver Spring, Md.

Resident-Intern Member

Katherine V. Greene, 625 South 25th Street, Arlington, Va.

Recent changes in membership status:

Active to Associate

Herbert J. Friedel
Donald P. Roach
Homer L. Twigg
Jason F. G. Yee

Resident-Intern to Associate

David G. Dixon
Gerald D. Schuster
Donald W. Wiczer

Resigned
Active

Leonard S. Berman

Associate

Myron E. Wegman

Resident-Intern

Jonas B. Robitscher

Books Received

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive reviews in the interest of our readers and as space permits. Physicians are urged to submit reviews of additional books which, in their opinion, merit comment.

The Management of Fractures and Soft Tissue Injuries—Based on an Outline of the Treatment of Fractures, 7th ed., and Early Care of Acute Soft Tissue Injuries, 2nd ed., by the Committee on Trauma, American College of Surgeons. Price, $5,00. Pp. 372, illustrated. Philadelphia: Saunders, 1960.

Complications in Surgery and Their Management, edited by CURTIS P. ARTZ, M.D., F.A.C.S., Associate Professor of Surgery of the University of Mississippi, AND JAMES D. HARDY, M.D., F.A.C.S., Professor and Chairman of the Department of Surgery of the University of Mississippi, with contributions by 69 authorities. Price, $23.00. Pp. 1075, illustrated. Philadelphia: Saunders, 1960.

The Liver and Cancer: A New Cancer Theory, 2nd ed. KASPER BLOND, M.D., F.I.C.S., with a foreword by E. Stanley Lee, M.S., F.R.C.S. Price, $8.00. Pp. 400. Bristol: John Wright & Sons, 1960. Baltimore: Williams & Wilkins., exclusive U. S. Agents.

Clinical Cardiopulmonary Physiology, 2nd ed., revised and enlarged. Sponsored by the American College of Chest Physicians. Editorial Board: BURGESS L. GORDON, M.D., *Editor-in-Chief;* ROSS C. KORY, M.D., *Associate Editor;* ALBERT H. ANDREWS, JR., M.D., JOHN F. BRIGGS, M.D., BENJAMIN M. GASUL, M.D., EDWIN R. LEVINE, M.D., AND JOHN J. SAMPSON, M.D. Price, $28.50. Pp. 1013, with 728 illustrations. New York: Grune & Stratton, 1960.

Cardiac Emergencies and Related Disorders: Their Mechanism, Recognition and Management. HAROLD D. LEVINE, M.D., Senior Associate in Medicine, Peter Bent Brigham Hospital, Boston, Mass.; Assistant Clinical Professor of Medicine, Harvard Medical School. Price, $12.00. Pp. 381. New York: Landsberger, 1960.

Outline of Pathology. JOHN H. MANHOLD, JR., D.M.D., M.A., F.A.C.D., Professor and Director of Oral Diagnosis and Pathology for the College of Dentistry, Seton Hall College of Medicine and Dentistry; Attending Pathologist, Jersey City Medical Center, AND THEODORE E. BOLDEN, D.D.S., M.S., PH.D., Assistant Professor of Oral Diagnosis and Pathology, College of Dentistry, Seton Hall College of Medicine and Dentistry; Attending Pathologist, Jersey City Medical Center. Price, $4.75. Pp. 340. Philadelphia: Saunders, 1960.

A System of Medical Hypnosis. AINSLIE MEARES, M.D., B. Agr. Sc., D.P.M., President, International Society for Clinical and Experimental Hypnosis. Price, $10.00. Pp. 484. Philadelphia: Saunders, 1960.

Adventure to Motherhood. The picture-story of pregnancy and childbirth. J. ALLAN OFFEN, M.D., Assistant Professor of Obstetrics and Gynecology, University of Miami School of Medicine; Attending Obstetrician and Gynecologist, Jackson Memorial Hospital. Price, $2.95. Pp. 72. Miami: Audio Visual Education Company, 1960.

Electrical Studies on the Unanesthetized Brain. A Symposium with 49 Participants. Edited by ESTELLE R. RAMEY, PH.D., Associate Professor, Department of Physiology and Biophysics, Georgetown University School of Medicine, AND DESMOND S. O'DOHERTY, M.D., Associate Professor of Neurology and Chairman of the Department of Neurology, Georgetown University School of Medicine. Price, $6.00. Pp. 423, with 252 illustrations. New York: Hoeber, 1960.

Diabetic Care in Pictures—Simplified Statements with Illustrations Prepared for the Use of the Patient, 3rd ed. HELEN ROSENTHAL, B.S., Former Chief, Frances Stern Food Clinic, The Boston Dispensary; former Assistant in Medicine at the School of Medicine, Tufts University, AND JOSEPH ROSENTHAL, M.D., Assistant Professor of Medicine at the School of Medicine, Tufts University; Assistant Professor of Medicine in the Postgraduate Division at the School of Medicine, Tufts University; Physician-in-Charge, Diabetes Clinic, The Boston Dispensary; Associate Staff, New England Center Hospital (all units of the New England Medical Center). Price, $4.50. Pp. 237, with 137 illustrations (including 12 in color). Philadelphia: Lippincott, 1960.

Sight—A Handbook for Laymen. ROY O. SCHOLZ, M.D., Ophthalmologist, The John Hopkins Hospital; Ophthalmologist-in-Charge, Out-Patient Department, The Johns Hopkins Hospital. Price, $3.50. Pp. 166. New York: Doubleday, 1960.

Care of the Well Baby. Medical Management of the Child from Birth to 2 Years of Age. KENNETH S. SHEPARD, M.D., Director of Well Baby Clinics, Northwestern University School of Medicine; Staff Examiner, Infant Welfare Society, Evanston; Pediatrician, Evanston Hospital Association and St. Francis Hospital, Evanston; American Board of Pediatrics. Price (paper), $3.25. Pp. 224, with 31 illustrations. Philadelphia: Lippincott, 1960.

Sea Within—The Story of Our Body Fluid. WILLIAM D. SNIVELY, JR., M.D., Lecturer in Pediatrics, University of Louisville School of Medicine; Attending Physician, Evansville Child Health Conferences; Vice President and Medical Director, Mead Johnson & Company. Price, $3.95. Pp. 150. Philadelphia: Lippincott, 1960.

The Question of Fertility. Translated from the French by Leah Suchodolski. GEORGES VALENSIN, M.D. Price, $4.50. Pp. 296. Garden City, N. Y.: Doubleday, 1960.

Ciba Foundation Colloquia on Endocrinology, Volume 13. Human Pituitary Hormones. In honor of Professor B. A. Houssay, For. mem. R. S. G. E. W. WOLSTENHOLME, O.B.E., M.A., M.B., M.R.C.P., AND CECILIA M. O'CONNOR, B.Sc., Editors for the Ciba Foundation. Price, $9.50. Pp. 336, with 86 illustrations, Boston: Little, 1960.

Ciba Foundation Symposium on Cellular Aspects of Immunity. G. E. W. WOLSTENHOLME, O.B.E., M.A., M.B., M.R.C.P., AND MAEVE O'CONNOR, B.A., Editors for the Ciba Foundation. Price, $10.50. Pp. 495, with 117 illustrations Boston: Little, 1960.

Ciba Foundation Symposium on Congenital Malformations. G. E. W. WOLSTENHOLME, O.B.E., M.A., M.B., M.R.C.P., AND CECILIA M. O'CONNOR, B.Sc., Editors for the Ciba Foundation. Price, $9.00. Pp. 308, with 91 illustrations. Boston: Little, 1960.

Obituaries

MALCOLM C. GROW, M.D.

(1887–1960)

Major General Malcolm C. Grow, M.C., U.S.A.F. (retired), the first Surgeon General of the Air Force, died October 20, 1960, at the Andrews Air Force Base Hospital after a long illness.

General Grow was born in Philadelphia in 1887. He graduated from the Jefferson Medical College in 1909. He enlisted in the Army Medical Corps during World War I and served as a surgeon with the 45th Artillery and the 42nd Infantry Division in France.

He was surgeon of the Eighth Air Force, and later of the U. S. Strategic Air Forces in the European Theater in World War II. He was named Surgeon General of the newly created Air Force Medical Services in July, 1949, and retired from active duty in November, 1949. He assisted in founding the Aero Medical Laboratory at the Wright-Patterson Air Force Base in Ohio.

General Grow was presented the John Jeffries Award for outstanding contributions to the advancement of aeronautics through medical research. He received the Distinguished Service Medal and other honors from the United States and was decorated by both France and Italy. He was a member of the British Royal Society of Medicine and an Honorary Fellow of the American College of Surgeons.

Surviving him is his wife, Mrs. Winifred Grow, of Annapolis, Maryland.

STEPHEN ALEXANDER McCARTHY, B.S., M.D.

(1907–1960)

Dr. Stephen A. McCarthy, a general practitioner and an advisor on the board of the Veterans Administration, died, September 30, 1960, at Providence Hospital. He lived at 10713 Huntwood Drive, Silver Spring, Maryland.

Dr. McCarthy, a native Washingtonian, was born, December 6, 1907, to Jeremiah J. and Nellie M. McCarthy. He attended Gonzaga Grammar and High Schools. He received both degrees, Bachelor of Science and Doctor of Medicine, from Georgetown University, the latter in 1931. He interned at Providence Hospital for a year and was resident physician for a year. He was Associate in Medicine on the staff of Providence for many years.

Dr. McCarthy began his practice in the District of Columbia in 1934 and continued until three years ago, when he joined the Veterans Administration. His offices were located for many years at 1127 East Capitol Street. In 1950 he moved his offices to his home, which was then at 1743 Shepherd Street, N.W.

Dr. McCarthy was elected to Active membership in the D.C. Medical Society in 1945 and continued his membership until 1953. He was a member of the Georgetown Clinical Society. He belonged to the Sacred Heart Church, where he was active in the Holy Name Society.

Surviving him are his wife, Mrs. Helen Simpson McCarthy; three sons, Stephen A., Jr., Michael W., and Kevan J., and three daughters, Mary E. and Carol A., all of the home address, and Mrs. Karl E. Davis, of Silver Spring, Maryland. He also leaves a sister, Miss C. McCarthy, of Washington, and two brothers, Joseph M. McCarthy, of Arlington, Va., and J. Leo McCarthy, of Washington.

Exhaled Air in Emergency Resuscitation—Cross

(*Continued from page 663*)

to all other methods of emergency resuscitation.

The primary objection to the method is an esthetic one. The esthetic objections can be overcome by the use of a simple adjunct suitable for both professional and lay use.

Acknowledgment: The author wishes to express his appreciation and thanks for the coöperation of Dr. Frank D. Allan, Associate Professor of Anatomy, George Washington University School of Medicine, who prepared the anatomic drawings, and to Dr. Benjamin W. Smith, Associate Professor of Biochemistry, for his interest and assistance in the preparation of certain figures.

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On the Lighter Side—Kadan

(*Continued from page 708*)

I had to do because I put off doing them until the last minute. But this year I was going to change all that by preparing early for Christmas and then becoming that nonchalant and charming person that you read about in an earlier paragraph. But Oh my goodness gracious! Wouldn't the harassed and frenzied friends, relatives and neighbors hate me if I did?

* * * * *

CHUCKLE NOTE: A fellow we know went to Florida last winter. He sent his psychiatrist a postcard saying: "Having a wonderful time. Why?" . . . Sometimes a man pulls the wool over his wife's eyes with the wrong yarn. And all the average wife wants is a roof over her head and the right to raise it occasionally. But remember, wives, keeping husbands in hot water won't make them tender. . . . Lots of girls can be had for a song. Trouble is, it's the wedding march.

J. EARL KADAN, M.D.

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